

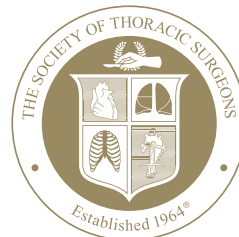


51st Annual Meeting

San Diego, California

January 24-28, 2015

Advance Program



**The Society
of Thoracic
Surgeons**

President's Message



David A. Fullerton, MD

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

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

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

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

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

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

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

I look forward to seeing you in San Diego!

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

What's New

New sessions include:

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

A special presentation will be held during the Monday morning General Session to mark the 50th Anniversary of *The Annals of Thoracic Surgery*.

An STS-PAC Reception will be held on Monday night, along with the Social Event on the USS Midway Aircraft Carrier.

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



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The Society of Thoracic Surgeons Education Disclosure Policy

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

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

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

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

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

Amended by the STS Executive Committee: April 11, 2012

STS 51ST ANNUAL MEETING

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

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

The American Board of Cardiovascular Perfusion designates this activity for 39.8 Category I CEUs.

Program at a Glance

Friday, January 23, 2015

3:00 PM – 6:00 PM

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


Saturday, January 24, 2015

7:00 AM – 6:00 PM

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

8:00 AM – 12:30 PM 

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

8:00 AM – 3:00 PM 

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

12:00 PM – 6:30 PM

STS/AATS Tech-Con 2015 Exhibits Open

1:00 PM – 2:30 PM

Cardiopulmonary Bypass Simulation Course

1:00 PM – 5:00 PM

STS/AATS Tech-Con 2015

5:00 PM – 6:30 PM

STS/AATS Tech-Con 2015 Reception


Sunday, January 25, 2015

7:00 AM – 6:30 PM

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

7:00 AM – 3:00 PM

STS/AATS Tech-Con 2015 Exhibits Open

7:50 AM – 12:00 PM 

Acquired and Congenital Heart Surgery Symposium: Challenges and Management of the Aorta in Adults With Congenital Heart Disease

7:50 AM – 12:00 PM 

Practice Management Summit

7:50 AM – 12:00 PM 


STS/AATS Critical Care Symposium: Essential Cardiac Critical Care Topics

8:00 AM – 11:45 AM

STS/AATS Tech-Con 2015

1:00 PM – 4:00 PM

Residents Symposium: Transitioning From Residency to a Successful Practice

1:15 PM – 4:30 PM 

Parallel Surgical Symposium: Congenital

1:15 PM – 4:30 PM 

Parallel Surgical Symposium: General Thoracic

1:15 PM – 4:30 PM

STS/AATS Tech-Con 2015

2:30 PM – 4:30 PM

CT Surgery Interprofessional Education Symposium: Multidisciplinary Team Approach to ECMO

4:00 PM – 6:30 PM

Scientific Posters Open

4:30 PM – 6:30 PM

Opening Reception in STS Exhibit Hall

Monday, January 26, 2015

6:30 AM – 5:00 PM

Registration: STS 51st Annual Meeting

7:00 AM – 7:15 AM

Opening Remarks

7:15 AM – 8:15 AM

J. Maxwell Chamberlain Memorial Papers

8:15 AM – 9:00 AM

Richard E. Clark Papers

9:00 AM – 4:30 PM

Exhibits Open
Scientific Posters Open

9:00 AM – 9:30 AM

BREAK—Visit Exhibits and Scientific Posters

9:30 AM – 9:40 AM

The Annals of Thoracic Surgery 50th Anniversary Presentation

9:40 AM – 9:50 AM

Introduction of the President: Mark S. Allen

9:50 AM – 10:50 AM

Presidential Address: David A. Fullerton

10:50 AM – 11:30 AM

BREAK—Visit Exhibits and Scientific Posters



11:30 AM – 12:30 PM

(8 parallel sessions)

Adult Cardiac Session: Arrhythmia
Adult Cardiac Session: Heart Failure
Basic Science Research: Adult Cardiac
Basic Science Research: General Thoracic
Congenital Session: Adult Congenital
Critical Care
General Thoracic Session: New Techniques
STS/CATS/CSCS: Current and Future
Workforce Issues in Cardiothoracic
Surgery—Staff and Resident
Perspectives From Canada and the US

12:30 PM – 1:15 PM

BREAK—Visit Exhibits and Scientific Posters

1:15 PM – 5:15 PM

ACC @ STS
Evidence and Quality Reshaping Practice

1:30 PM – 3:30 PM

(7 parallel sessions)

Adult Cardiac Session: Aortic
Adult Cardiac Session: Ischemic
Congenital Session: Pediatric Congenital I
General Thoracic Session: Lung Cancer I
General Thoracic Session: Lung Transplantation
Managing Cardiogenic Shock or Pulmonary Failure: Short-Term Mechanical Circulatory Support
STS/SCA: Considerations in Perioperative Resuscitation of Cardiothoracic Patients

3:30 PM – 4:15 PM

BREAK—Visit Exhibits and Scientific Posters

4:15 PM – 5:15 PM


Surgical Motion Picture Matinees: Adult Cardiac, Congenital, and General Thoracic
Late-Breaking Abstract Sessions

5:00 PM – 6:30 PM

Scientific Posters and Wine

5:30 PM – 6:30 PM

Business Meeting (STS Members Only)

6:45 PM – 7:45 PM 

STS-PAC Reception: USS Midway Aircraft Carrier Museum

7:00 PM – 10:00 PM 

STS Social Event: USS Midway Aircraft Carrier Museum

Tuesday, January 27, 2015

6:30 AM – 4:30 PM


Registration: STS 51st Annual Meeting

7:30 AM – 8:30 AM 

Early Riser Sessions

 Indicates that a ticket is required to attend.

Program at a Glance

7:30 AM – 8:30 AM 

Early Riser Health Policy Forum:
The End of Global Surgical Payments
Under Medicare?

9:00 AM – 10:00 AM

Thomas B. Ferguson Lecture:
Pedro J. del Nido

9:00 AM – 3:00 PM

Exhibits Open

9:00 AM – 4:30 PM

Scientific Posters Open

10:00 AM – 10:45 AM

BREAK—Visit Exhibits and
Scientific Posters

10:45 AM – 11:00 AM

Award Presentations

11:00 AM – 12:00 PM

C. Walton Lillehei Lecture:
Patrick T. O’Gara

12:00 PM – 1:00 PM

BREAK—Visit Exhibits and
Scientific Posters

12:00 PM – 1:00 PM 

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

12:00 PM – 1:00 PM

Residents Luncheon

1:00 PM – 3:00 PM

(8 parallel sessions)

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

1:00 PM – 5:00 PM

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

3:00 PM – 3:30 PM

BREAK—Visit Scientific Posters

3:30 PM – 5:30 PM


(8 parallel sessions)

Adult Cardiac Session: Aortic Valve
Adult Cardiac Session: General II
Cardiothoracic Surgical Education
Congenital Session: Pediatric Congenital III
ESTS @ STS
General Thoracic Session:
Mediastinal/Pulmonary
Role of SBRT in Lung Cancer Treatment
SVS @ STS

Wednesday, January 28, 2015

6:30 AM – 9:30 AM

Registration: STS University

7:00 AM – 9:00 AM 

STS University

9:30 AM – 11:30 AM 

STS University (courses repeated)



 Indicates that a ticket is required to attend.

Program Grid

	Registration	STS/AATS Tech-Con	General	General Session	STS Members Only	Adult Cardiac	Congenital Heart	General Thoracic					
Friday January 23	6:30 AM	7:00 AM	7:30 AM	8:00 AM	8:30 AM	9:00 AM	9:30 AM	10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	
Saturday January 24	Registration												
			STS/SCA: The Utility of Perioperative Echocardiography for Surgical Decision Making										
			STS/CHEST: Primer on Advanced and Therapeutic Bronchoscopy—Theory and Hands-on Session										
												STS/AATS	
Sunday January 25	Registration												
	STS/AATS Tech-Con 2015 Exhibits												
			STS/AATS Tech-Con 2015										
			Acquired and Congenital Heart Surgery Symposium: Challenges and Management of the Aorta in Adults With Congenital Heart Disease										
			Practice Management Summit										
			STS/AATS Critical Care Symposium: Essential Cardiac Critical Care Topics										
Monday January 26	Registration												
	General Session I				General Session I								
					Scientific Posters Open								
					Exhibits Open								
												Adult Cardiac Session	
												Adult Cardiac Session	
												Basic Science Research	
												Congenital Session	
												General Thoracic Session	
												Basic Science Research	
												Critical Care	
												STS/CATS/CSCS Current and Future Workforce Issues in CT Surgery	
Tuesday January 27	Registration												
		Early Riser Sessions			Scientific Posters Open								
		Health Policy Forum: Medicare and the End of Global Surgical Payments			Exhibits Open								
				General Session II				General Session II					
												Ethics Deb	
												Residents	
Wednesday January 28	Registration												
	STS University				STS University (courses repeated)								

	12:30 PM	1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	3:30 PM	4:00 PM	4:30 PM	5:00 PM	5:30 PM	6:00 PM	
						Registration							
	Cardiopulmonary Bypass Simulation Course												
Tech-Con 2015 Exhibits													
		STS/AATS Tech-Con 2015								STS/AATS Tech-Con 2015 Reception			
		STS/AATS Tech-Con 2015											
		Residents Symposium: Transitioning From Residency to a Successful Practice					Scientific Posters Open						
					CT Surgery Interprofessional Symposium: Multidisciplinary Team Approach to ECMO			Opening Reception in STS Exhibit Hall					
		Congenital Parallel Surgical Symposium											
		General Thoracic Parallel Surgical Symposium											
											Business Meeting		
										Scientific Posters and Wine			
		Adult Cardiac Session											
		Adult Cardiac Session											
		Congenital Session											
		General Thoracic Session											
		General Thoracic Session											
		Managing Cardiogenic Shock or Pulmonary Failure: Short-Term MCS					Surgical Motion Pictures						
		STS/SCA: Considerations in Perioperative Resuscitation of Cardiothoracic Patients					Late-Breaking Sessions						
		ACC @ STS											
		Evidence and Quality Reshaping Practice											
		Strategies to Improve Outcomes With Long-Term MCS Devices											
Luncheon		Patient Safety Symposium: Building a High-Performance Team for Patient Safety					Cardiothoracic Surgical Education						
		JCTSE/STS Workforce on International Relationships: Globalization of Graduate Surgical Education in CT Surgery											
		Adult Cardiac Session					Adult Cardiac Session						
		Adult Cardiac Session					Adult Cardiac Session						
		STS/EACTS: Management of the Aortic Arch in Aortic Dissection					SVS @ STS						
		Congenital Session					Congenital Session						
		General Thoracic Session					General Thoracic Session						
		General Thoracic Session					Role of SBRT in Lung Cancer Treatment						
						ESTS @ STS							



STS/AATS Tech-Con 2015

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

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

Saturday, January 24, 2015

12:00 PM – 6:30 PM

STS/AATS Tech-Con 2015 Exhibits Open

1:00 PM – 2:45 PM

Joint Session: Barriers and/or Pathways for Adoption of New Technology: Perspectives From Surgeons, FDA, CMS, Industry, and Hospital Administration

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

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

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

2:45 PM – 3:15 PM

BREAK—Visit STS/AATS Tech-Con 2015 Exhibits

3:15 PM – 5:00 PM

Adult Cardiac Track I: Mitral Valve, Atrial Fibrillation, and the Left Atrial Appendage

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

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

*Invited

STS/AATS TECH-CON 2015

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

STS/AATS Tech-Con 2015

- 3:41 PM How I Do It: Robotic Mitral Valve Repair—
Making It Simple and Reproducible
Douglas A. Murphy, Atlanta, GA
- 3:49 PM Discussion
- 4:06 PM MitraClip: The Only FDA-Approved Transcatheter Mitral
Valve Repair Technology in the US
Gorav Ailawadi, Charlottesville, VA
- 4:14 PM Transcatheter Mitral Valve Replacement Techniques
Vinod H. Thourani, Atlanta, GA
- 4:22 PM Transcatheter Mitral Valve Repair Techniques
Michael J. Mack, Dallas, TX
- 4:30 PM Surgical Management of Atrial Fibrillation in Patients
Undergoing Coronary Artery Bypass Grafting (CABG)
Surgery or Aortic Valve Replacement: Pulmonary Vein
Isolation or Batrial Maze Operation
Patrick M. McCarthy, Chicago, IL
- 4:38 PM Discussion
- 4:55 PM Closing Remarks

3:15 PM – 5:00 PM

General Thoracic Track I: Novel Thoracoscopic Techniques & Tools, New Developments in Management of Lung Tumors

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

- 3:15 PM Welcome and Introduction
*Mark F. Berry, Durham, NC, and Sunil Singhal, Philadelphia, PA**
- 3:20 PM Setting Up a Lung Cancer Screening Program
Daniel J. Boffa, New Haven, CT
- 3:35 PM Uniportal VATS Lobectomy in Non-Intubated Patients
*Diego Gonzalez Rivas, Madrid, Spain**
- 3:50 PM New Thoracoscopic Tools
Mark F. Berry, Durham, NC
- 4:05 PM Novel Agents for Induction Treatment of Non-Small Cell
Lung Cancer
*Mark Onaitis, Durham, NC**
- 4:20 PM Intraoperative Local Cancer Therapies
Shaf H. Keshavjee, Toronto, Canada
- 4:35 PM Multimodality Treatment of Pulmonary
Metastatic Disease
Jessica S. Donington, New York, NY
- 4:50 PM Discussion

5:00 PM – 6:30 PM

STS/AATS Tech-Con 2015 Reception

*Invited

Sunday, January 25, 2015

7:00 AM – 3:00 PM

STS/AATS Tech-Con 2015 Exhibits Open

8:00 AM – 9:30 AM

Adult Cardiac Track II: Coronary Artery Disease

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

- 8:00 AM Welcome and Introduction
Robert C. Hagberg, Hartford, CT, and Michael E. Halkos, Atlanta, GA
- 8:02 AM How I Do It: Robot-Assisted Coronary Artery Bypass
Grafting (CABG), Left Internal Mammary Artery (LIMA)-
Left Anterior Descending Grafting
Francis P. Sutter, Wynnewood, PA
- 8:12 AM How I Do It: Totally Endoscopic Coronary Artery
Bypass—Getting Past Robotic LIMA Harvest to
Robotic Anastomosis
Johannes Bonatti, Baltimore, MD
- 8:22 AM How I Do It: Non-Robotic Minimally Invasive CABG
Approaches for Multivessel Coronary Artery Disease
Marc Ruel, Ottawa, Canada
- 8:32 AM Can We Afford Anastomotic Connectors for CABG?
Husam H. Balkhy, Chicago, IL
- 8:42 AM Robotic CABG Disasters
Bob S. Kiaii, London, Canada
- 8:52 AM Hybrid Coronary Revascularization: Who's Eligible?
Michael E. Halkos, Atlanta, GA
- 9:02 AM Cost of Robotic Technology and Financial Implications
for Hospital Administration
Robert S. Poston, Tucson, AZ
- 9:12 AM Panel Discussion
- 9:25 AM Closing Remarks

8:00 AM – 9:30 AM

General Thoracic Track II: Integrated Medical Records, 3D Printers for Surgical Planning, Chest Wall Techniques, Artificial Organs, and Simulation

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

- 8:00 AM Welcome and Introduction
K. Robert Shen, Rochester, MN, and Michael F. Reed, Hershey, PA
- 8:05 AM Expanded Use of Electronic Medical Records
Cameron D. Wright, Boston, MA

STS/AATS Tech-Con 2015

8:17 AM 3D Printers for Surgical Planning
*Jane S. Matsumoto, Rochester, MN, and Jonathan M. Morris, Rochester, MN**

8:29 AM Pectus Repair in Adults
Dawn E. Jaroszewski, Phoenix, AZ

8:41 AM Rib Plating for Thoracic Trauma
Jane Yanagawa, New York, NY

8:53 AM Decellularization of Whole Organs as a Platform for Bioengineered Organs
Harald C. Ott, Boston, MA

9:05 AM How to Acquire New Skills Using Simulation
Shari L. Meyerson, Chicago, IL

9:17 AM Discussion

9:30 AM – 10:15 AM

BREAK—Visit STS/AATS Tech-Con 2015 Exhibits

10:15 AM – 11:45 AM

Adult Cardiac Track III: Aortic Valve

Moderators: *Michael A. Borger, New York, NY, and Robert W. Emery Jr, Minneapolis, MN*

10:15 AM Welcome and Introduction
Michael A. Borger, New York, NY, and Robert W. Emery Jr, Minneapolis, MN

10:16 AM How I Do It: A Self-Expanding Sutureless Valve
Martin Misfeld, Leipzig, Germany

10:23 AM Will Sutureless Valves Replace Commercially Available Stented Valves?
Michael A. Borger, Leipzig, Germany

10:30 AM Discussion

10:37 AM Pitfalls of Aortic Valve Repair
Laurent De Kerchove, Brussels, Belgium

10:44 AM Most Patients Should Have a Biologic Aortic Valve Since Transcatheter Aortic Valve Replacement (TAVR) Valve-in-Valve Is Available

PRO: *G. Michael Deeb, Ann Arbor, MI*

CON: *John S. Ikonomidis, Charleston, SC*

10:58 AM Discussion

11:05 AM A Self-Expanding Valve for All Annular Sizes: CoreValve Evolut
Michael J. Reardon, Houston, TX

11:11 AM A New Balloon Expandable Valve With an Anti-Leak Cuff: SAPIEN 3
Vinod H. Thourani, Atlanta, GA

11:18 AM Other Upcoming Technologies for TAVR: Lotus, Portico, and Symetis
Gregory P. Fontana, New York, NY

11:24 AM A Transapical Valve for Aortic Insufficiency: JenaValve
Hendrik Treede, Hamburg, Germany

11:31 AM Transcaval TAVR: Are You Serious?
Adam B. Greenbaum, Detroit, MI

11:38 AM Discussion

11:44 AM Closing Remarks

10:15 AM – 11:45 AM

General Thoracic Track III: New Techniques for Esophageal Disease, Diaphragm Disorders, and Nanotechnology

Moderators: *Shanda H. Blackmon, Rochester, MN, and Inderpal S. Sarkaria, New York, NY**

10:15 AM Welcome and Introduction
*Shanda H. Blackmon, Rochester, MN, and Inderpal S. Sarkaria, New York, NY**

10:20 AM Endoluminal Suturing Devices
Shanda H. Blackmon, Rochester, MN

10:35 AM Integrating Peroral Endoscopic Myotomy Into Clinical Practice
*Dennis A. Wigle, Rochester, MN**

10:50 AM Reoperative Foregut Surgery for Failed Novel Technology
Steven R. Demeester, Los Angeles, CA

11:05 AM Diaphragm Pacing
Raymond P. Onders, Cleveland, OH

11:20 AM Nanotechnology Applications in General Thoracic Surgery
Yolonda L. Colson, Boston, MA

11:35 AM Discussion

11:45 AM – 12:00 PM

BREAK—Visit STS/AATS Tech-Con 2015 Exhibits

12:00 PM – 1:00 PM

Lunch

1:00 PM – 1:15 PM

BREAK—Visit STS/AATS Tech-Con 2015 Exhibits

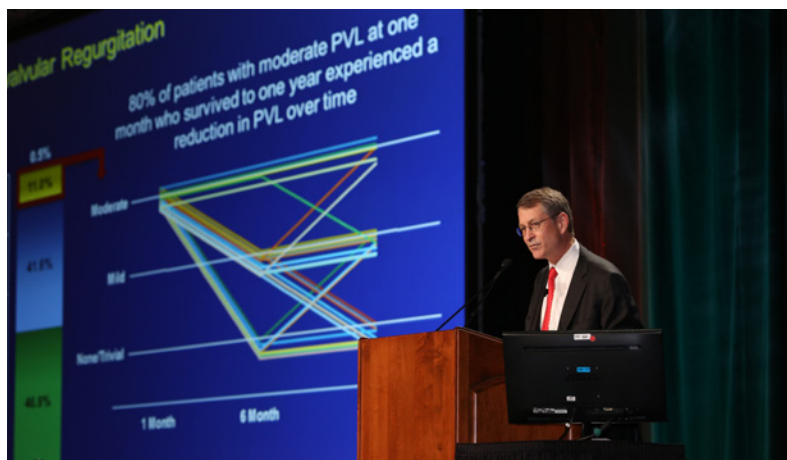
STS/AATS Tech-Con 2015

1:15 PM – 2:45 PM

Adult Cardiac Track IV: Aortic Surgery and Endovascular Interventions

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

- 1:15 PM Welcome and Introduction
Himanshu J. Patel, Ann Arbor, MI, and Joseph D. Schmoker, Burlington, VT
- 1:16 PM Valve-Sparing Root Replacement Using the Expandable Aortic Ring
Emmanuel Lansac, Paris, France
- 1:24 PM How I Do It: Valve-Sparing Aortic Root Replacement in a Bicuspid Aortic Valve
Joseph E. Bavaria, Philadelphia, PA
- 1:32 PM Discussion
- 1:39 PM Utilization of Hybrid Stent Grafts for the Aortic Arch
TBA
- 1:47 PM Cerebral Protection for Aortic Arch Surgery: Retrograde Cerebral Perfusion Is Optimal
Leonard N. Girardi, New York, NY
- 1:55 PM Cerebral Protection for Aortic Arch Surgery: Antegrade Cerebral Perfusion Is Optimal
Joseph S. Coselli, Houston, TX
- 2:03 PM Discussion
- 2:10 PM Single Limb and Multibranch Grafts in the Descending Aorta
Himanshu J. Patel, Ann Arbor, MI
- 2:18 PM How I Do It: Thoracic Endovascular Aortic Repair (TEVAR) for Type B Aortic Dissection
Bradley G. Leshnowar, Atlanta, GA
- 2:25 PM Type B Dissection: Open vs Endovascular Repair
Michael P. Fischbein, Stanford, CA
- 2:33 PM Transapical TEVAR for the Ascending Aorta
Wilson Y. Szeto, Philadelphia, PA
- 2:40 PM Discussion
- 2:44 PM Closing Remarks



2:45 PM – 3:10 PM

BREAK—Visit STS/AATS Tech-Con 2015 Exhibits

3:10 PM – 4:30 PM

Adult Cardiac Track V: Ventricular Heart Devices

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

- 3:10 PM Welcome and Introduction
Nicholas G. Smedira, Cleveland, OH, and Y. Joseph Woo, Stanford, CA
- 3:12 PM Left Ventricular Assist Device (LVAD) for Class 3b Patients
Francis D. Pagani, Ann Arbor, MI
- 3:20 PM LVAD Plus Stem Cells
Deborah Ascheim, New York, NY
- 3:28 PM Transcutaneous Energy Transfer Technologies
Hari R. Mallidi, Houston, TX
- 3:36 PM Lower Threshold for BiVAD Implantation
Evgenij P. Potapov, Berlin, Germany
- 3:44 PM HeartWare Longhorn
TBA
- 3:52 PM ReinHeart
Gero Tenderich, Duisburg, Germany
- 4:00 PM Carmat Total Artificial Heart
Mark S. Slaughter, Louisville, KY
- 4:08 PM How I Do It: LVAD Implantation
Nicholas G. Smedira, Cleveland, OH
- 4:16 PM Discussion
- 4:26 PM Closing Remarks

Saturday, January 24, 2015

7:00 AM – 6:00 PM

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

8:00 AM – 12:30 PM 

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

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

Learning Objectives

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

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

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

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

Session I

8:00 AM [Persistent Mitral Regurgitation After Mitral Valve Repair](#)
Stanton K. Sherman, Boston, MA

8:30 AM [Mitral Regurgitation in Patients Undergoing Aortic Valve Surgery](#)
*G. Burkhard Mackensen, Seattle, WA**

9:00 AM [New Mitral Stenosis After Mitral Valve Repair](#)
Stanton K. Sherman, Boston, MA

9:30 AM [Clinical Utility of Echocardiography in the ICU After Cardiac Surgery](#)
*Georges Desjardins, Salt Lake City, UT**

10:00 AM [Break](#)

Session II

10:30 AM [Aortic Valve—Repair or Replace?](#)
*Georges Desjardins, Salt Lake City, UT**

11:00 AM [Unsuspected Aortic Stenosis During Scheduled Coronary Artery Bypass Grafting Surgery](#)
Alina Nicoara, Durham, NC



11:30 AM [Mitral Valve Surgery or Myectomy Alone for Hypertrophic Obstructive Cardiomyopathy](#)
G. Burkhard Mackensen, Seattle, WA

12:00 PM [Systolic Anterior Motion After Aortic Valve Replacement](#)
*Alina Nicoara, Durham, NC**

8:00 AM – 3:00 PM 

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

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

Learning Objectives

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

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

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

Saturday, January 24, 2015

8:00 AM	Welcome and Introduction <i>Momen M. Wahidi, Durham, NC, and Richard I. Whyte, Boston, MA</i>
8:10 AM	EBUS Mediastinal Anatomy <i>Kazuhiro Yasufuku, Toronto, Canada</i>
8:30 AM	EBUS/Transbronchial Needle Aspiration (TBNA) <i>Momen M. Wahidi, Durham, NC</i>
8:50 AM	Navigational Bronchoscopy and Radial EBUS <i>Moishe A. Liberman, Montreal, Canada</i>
9:20 AM	Panel Discussion
9:40 AM	Break
10:00 AM	Rigid Bronchoscopy <i>Stephen R. Hazelrigg, Springfield, IL</i>
10:20 AM	Therapeutic Endoscopy: Laser, Cryotherapy, Electrocautery, and Argon Plasma Coagulation (APC) <i>Richard I. Whyte, Boston, MA</i>
10:40 AM	Airway Stents <i>Michael S. Mulligan, Seattle, WA*</i>
11:00 AM	Foreign Body Removal <i>David Ost, Houston, TX</i>
11:20 AM	Endobronchial Valves for Air Leak <i>Christine Argento, Atlanta, GA</i>
11:40 AM	Panel Discussion
12:00 PM	Lunch
12:30 PM	Hands-on Breakout Sessions
	Station 1: EBUS/TBNA Airway Models <i>Kazuhiro Yasufuku, Toronto, Canada, and Robert E. Merrit, Columbus, OH</i>
	Station 2: Case Discussion <i>Momen M. Wahidi, Durham, NC, and Richard I. Whyte, Boston, MA</i>
	Station 3: EBUS Simulator/Endobronchial Valves <i>Christine Argento, Atlanta, GA, and David Ost, Houston, TX</i>
	Station 4: Rigid Bronchoscopy and Stents <i>Michael S. Mulligan, Seattle, WA</i>
	Station 5: Electrocautery, APC, and Cryotherapy <i>Alexander C. Chen, St Louis, MO, and Moishe A. Liberman, Montreal, Canada</i>

*Invited

 Indicates that a ticket is required to attend.

1:00 PM – 2:30 PM

Cardiopulmonary Bypass Simulation Course

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

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

Learning Objectives

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

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

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



Sunday, January 25, 2015

7:00 AM – 6:30 PM

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

7:50 AM – 12:00 PM 

Acquired and Congenital Heart Surgery Symposium: Challenges and Management of the Aorta in Adults With Congenital Heart Disease

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

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

Learning Objectives

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

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

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

7:50 AM	Welcome <i>Joseph A. Dearani, Rochester, MN</i>
8:00 AM	Ascending Aorta With Bicuspid Aortic Valve <i>Joseph E. Bavaria, Philadelphia, PA</i>
8:25 AM	Ascending Aorta With Conotruncal Anomalies <i>Joseph A. Dearani, Rochester, MN*</i>
8:50 AM	Percutaneous Approaches to the Arch and Isthmus <i>Grayson Wheatley, Philadelphia, PA</i>

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

9:40 AM Break

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

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

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

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

11:40 AM Discussion

7:50 AM – 12:00 PM 

Practice Management Summit

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

Learning Objectives

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

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

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

7:50 AM	Introduction <i>Frank L. Fazzalari, Rochester, MI</i>
8:00 AM	Basics of the Affordable Care Act/Free Market <i>Jim Reilly, Denver, CO</i>
8:20 AM	Contracts and Restrictive Covenants <i>Mike Heaton, Indianapolis, IN</i>
8:40 AM	Work Relative Value Unit Employment Models: A Bad Choice for Cardiothoracic Surgeons <i>Michael G. Moront, Toledo, OH</i>

*Invited

 Indicates that a ticket is required to attend.

Sunday, January 25, 2015

9:00 AM	The Value of the CT Surgeon Leader in an Integrated Delivery System <i>Drew Rector, Rockledge, FL</i>
9:20 AM	One Surgeon's Observations on Leadership From Public, Private, and Nonprofit Perspectives <i>James B. Peake, Washington, DC</i>
9:40 AM	Panel Discussion
10:10 AM	Break
10:20 AM	Washington Perspective: Health Policy in the Final Years of the Obama Presidency and Longer-Term Outlook <i>Joseph Antos, Washington, DC</i>
10:40 AM	The Real Economics of Care Delivery <i>Paul Taheri, New Haven, CT</i>
11:00 AM	A Realistic, Practical Assessment of Health Care Reform on Cardiothoracic Surgery <i>Nathan Kaufman, San Diego, CA</i>
11:20 AM	Transitions From Practice: Pathway Opportunities Outside of the OR <i>Stephen C. Yang, Baltimore, MD</i>
11:40 AM	Panel Discussion

7:50 AM – 12:00 PM

STS/AATS Critical Care Symposium: Essential Cardiac Critical Care Topics

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

Learning Objectives

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

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

 Indicates that a ticket is required to attend.

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

7:50 AM	Welcome and Introduction <i>Kevin W. Lobdell, Charlotte, NC</i>
8:00 AM	Diagnosis and Medical Therapy for the Treatment of Endocarditis <i>Emily Langdon, Chicago, IL</i>
8:15 AM	Echocardiography Assessment of Endocarditis <i>John Symanski, Charlotte, NC</i>
8:30 AM	Why Is Endocarditis a Surgical Problem? Aggressive Surgical Approach to Endocarditis <i>Gosta Pettersson, Cleveland, OH</i>
8:50 AM	Question and Answer Session <i>Rakesh Arora, Winnipeg, Canada</i>
9:00 AM	The "Correct" Way of Nutritional Support in the CT ICU <i>Krishnan Sriram, Chicago, IL</i>
9:20 AM	Current Practice of Nutritional Therapy in the Johns Hopkins CT ICU <i>Emily Stewart, Baltimore, MD</i>
9:30 AM	Question and Answer Session <i>Vassyl A. Lonchyna, Chicago, IL</i>
9:45 AM	The New Era of Glycemic Control in the CT ICU <i>Kevin W. Lobdell, Charlotte, NC</i>
9:50 AM	Current "State of the Art" Strategies for Glycemic Control in the CT ICU <i>Harold L. Lazar, Boston, MA</i>



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

1:00 PM – 4:00 PM

Residents Symposium: Transitioning From Residency to a Successful Practice

This symposium will provide cardiothoracic surgery residents with practical information regarding the transition from residency to practice. The first session will include talks related to the job search: how to find the right position, interviewing tips, and negotiating a contract. The second session will include talks related to transitioning into practice: how to bring new technologies to a practice, team building, and early career development. Each session will be followed by small group table discussions led by experienced surgeons and a larger group discussion with the speakers.

Learning Objectives

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

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

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

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



1:25 PM	Keys to a Successful Interview <i>Christine L. Lau, Charlottesville, VA</i>
1:45 PM	What You Need to Know About Contracts <i>Faiz Y. Bhora, New York, NY</i>
2:05 PM	Breakout Sessions
2:25 PM	Group Discussion
2:40 PM	Evaluation Completion/Break
2:50 PM	Team Building and Adding New Technologies <i>Edward P. Chen, Atlanta, GA</i>
3:10 PM	Early Career Development <i>Elizabeth A. David, Sacramento, CA</i>
3:30 PM	Breakout Sessions
3:45 PM	Group Discussion
3:55 PM	Evaluation Completion

1:15 PM – 4:30 PM

Parallel Surgical Symposium: Congenital

Congenital Heart Surgery Rounds: Problems, Choices, Action

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

*Invited

 Indicates that a ticket is required to attend.

Sunday, January 25, 2015

Learning Objectives

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

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

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

1:15 PM	Introductory Remarks <i>Christopher A. Caldarone, Toronto, Canada, Jonathan M. Chen, Seattle, WA, and Andrew C. Fiore, St Louis, MO</i>
1:20 PM	Tough Problem 1: Infant with interrupted aortic arch and ventricular septal defect with left ventricular outflow tract obstruction <i>Ralph S. Mosca, New York, NY*</i>
1:40 PM	Clinical Scenario 1
1:55 PM	Tough Problem 2: Neonate with pulmonary atresia-intact ventricular septum with right ventricular dependent coronary circulation and diminished left ventricular function <i>James S. Tweddell, Milwaukee, WI*</i>
2:15 PM	Clinical Scenario 2
2:25 PM	Tough Problem 3: Infant on a ventilator, blood type O, with hypoplastic left heart syndrome after Norwood stage I with diminished ventricular function and severe tricuspid regurgitation <i>Glen S. Van Arsdell, Toronto, Canada*</i>
2:45 PM	Clinical Scenario 3
3:00 PM	Break
3:15 PM	Tough Problem 4: Infant with borderline left ventricle by size converted to a two-ventricle repair, now with left atrial hypertension, moderate aortic stenosis and regurgitation, and moderate mitral stenosis <i>Pedro J. del Nido, Boston, MA*</i>
3:35 PM	Clinical Scenario 4
3:50 PM	Tough Problem 5: Infant with recurrent pulmonary vein stenosis after a sutureless repair of post-repair pulmonary vein stenosis <i>Christopher A. Caldarone, Toronto, Canada</i>

*Invited

 Indicates that a ticket is required to attend.

4:10 PM	Clinical Scenario 5
4:25 PM	Concluding Remarks <i>Christopher A. Caldarone, Toronto, Canada, Jonathan M. Chen, Seattle, WA, and Andrew C. Fiore, St Louis, MO</i>

1:15 PM – 4:30 PM 

Parallel Surgical Symposium: General Thoracic

This symposium will focus on issues that are pertinent to today's practicing thoracic surgeon and will help attendees address gaps in knowledge on the current treatment of esophageal cancer, the approach to complex resections for lung cancer, and the management of challenging situations in thoracic surgery.

Learning Objectives

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

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

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

1:15 PM	How the New Staging System Changes Treatment: Update on Esophageal Cancer <i>Rishindra M. Reddy, Ann Arbor, MI</i>
1:30 PM	Treatment of Early Stage Disease: Update on Esophageal Cancer <i>Steven R. Demeester, Los Angeles, CA</i>
1:45 PM	When the Stomach Is Not Available: Update on Esophageal Cancer <i>Shanda H. Blackmon, Rochester, MN</i>
2:00 PM	Minimally Invasive Esophagectomy Tips and Tricks: Update on Esophageal Cancer <i>James D. Luketich, Pittsburgh, PA*</i>
2:15 PM	Segmentectomy Tips and Tricks: Pearls in Lung Cancer Resection <i>Robert McKenna, Los Angeles, CA*</i>
2:30 PM	Bronchial and Pulmonary Arterial Sleeve Resections: Pearls in Lung Cancer Resection <i>G. Alexander Patterson, St Louis, MO</i>

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2:45 PM	Resecting Locally Invasive Lung Cancer: Pearls in Lung Cancer Resection <i>Garrett L. Walsh, Houston, TX</i>
3:00 PM	Management of Ground Glass Lesions: Pearls in Lung Cancer Resection <i>Nasser K. Altorki, New York, NY</i>
3:15 PM	Break
3:30 PM	Pulmonary Artery Injury During VATS Lobectomy: Complicated Scenarios in Thoracic Surgery <i>Thomas D'Amico, Durham, NC</i>
3:45 PM	Airway Injury During Esophagectomy: Complicated Scenarios in Thoracic Surgery <i>Jules Lin, Ann Arbor, MI</i>
4:00 PM	How to Manage Positive Margins During Thoracic Surgery: Complicated Scenarios in Thoracic Surgery <i>Mark K. Ferguson, Chicago, IL</i>
4:15 PM	Management of Esophageal Perforations: Complicated Scenarios in Thoracic Surgery <i>Thomas K. Varghese Jr, Seattle, WA</i>

2:30 PM – 4:30 PM

CT Surgery Interprofessional Education Symposium: Multidisciplinary Team Approach to ECMO

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

Learning Objectives

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

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

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

2:30 PM	Who Is a Candidate for ECMO and What Type of ECMO? <i>Daphne Hardison, Franklin, TN</i>
2:45 PM	The ABCs of an ECMO Circuit <i>Britt McIlwain, Trussville, AL</i>

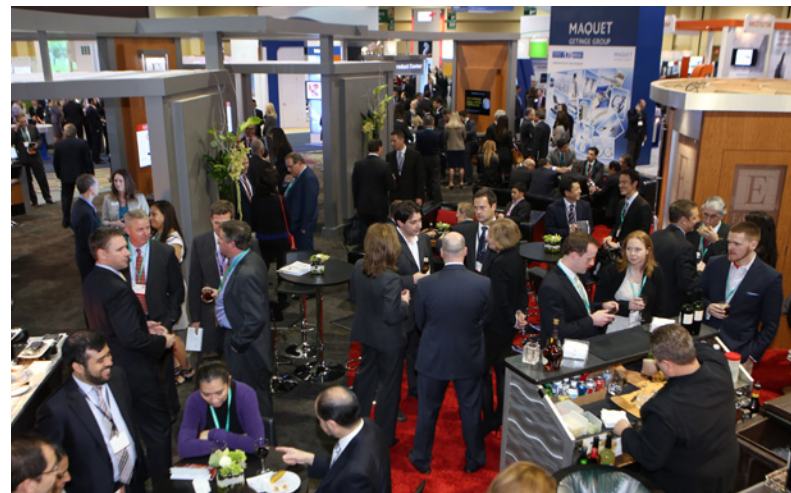
3:00 PM	The Window of Opportunity: When to Wean and When Not to Wean <i>William Costello, Nashville, TN</i>
3:15 PM	Establishing an ECMO Program <i>Kenton J. Zehr, Baltimore, MD</i>
3:30 PM	Simulation Session <i>Jeffrey Riley, Rochester, MN*</i>
4:10 PM	Panel Discussion <i>Nicole M. Michaud, Franklin, TN</i>

4:00 PM – 6:30 PM

Scientific Posters Open

4:30 PM – 6:30 PM

Opening Reception in the STS Exhibit Hall



Monday, January 26, 2015

6:30 AM – 5:00 PM

Registration: STS 51st Annual Meeting

7:00 AM – 10:45 AM

General Session I

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

7:00 AM Opening Remarks

7:15 AM **J. Maxwell Chamberlain Memorial Paper for General Thoracic Surgery:** Comparison of The Society of Thoracic Surgeons General Thoracic Surgery Database and the American College of Surgeons National Surgical Quality Improvement Program in a General Thoracic Surgical Practice

M. S. Allen, F. C. Nichols, S. D. Cassivi, K. Shen, D. A. Wigle

Mayo Clinic, Rochester, MN

Discussant: Joe B. Putnam Jr, Nashville, TN

7:35 AM **J. Maxwell Chamberlain Memorial Paper for Adult Cardiac Surgery:** Over 3 Decades of Follow-Up Demonstrates Improved Survival With Bilateral vs Single Internal Mammary Artery Grafting in Elderly Patients

P. A. Kurlansky¹, E. Traad¹, M. J. Dorman², D. Galbut¹, G. Ebra¹

¹Florida Heart Research Institute, Miami, ²Palm Beach Gardens Hospital, Boynton Beach, FL

Discussant: Robert A. Guyton, Atlanta, GA

7:55 AM **J. Maxwell Chamberlain Memorial Paper for Congenital Heart Surgery:** Improving Cardiac Surgical Site Infection Diagnosis, Adjudication, and Reporting by Using Registry Data for Case Ascertainment

V. Nayar, A. T. Kennedy, J. Pappas, K. D. Atchley, C. Field, S. Smathers, E. Teszner, J. Sammons, S. Coffin, J. Gerber, T. L. Spray, J. Steven, L. Bell, J. Forrer, F. Gonzalez, A. Chi, W. J. Nieczpiel, J. Martin, J. Gaynor

The Children's Hospital of Philadelphia, PA

Discussant: Donald S. Likosky, Ann Arbor, MI

8:15 AM **Richard E. Clark Paper for General Thoracic Surgery:** The Society of Thoracic Surgeons Composite Score for Lobectomy for Lung Cancer: The First Thoracic Quality Measure for Public Reporting

B. D. Kozower¹, M. J. Magee², S. O'Brien³, A. Kosinski³, R. Dokholyan³, J. P. Jacobs⁴, D. Shahian⁵, C. D. Wright⁵, F. G. Fernandez⁶

¹University of Virginia Health System, Charlottesville,

²HCA North Texas Division, Dallas, ³Duke Clinical

Research Institute, Durham, NC, ⁴Johns Hopkins All Children's Heart Institute, St Petersburg, FL,

⁵Massachusetts General Hospital, Boston, ⁶Emory University, Atlanta, GA

Discussant: Farhood Farjah, Seattle, WA

8:30 AM

Richard E. Clark Paper for Adult Cardiac Surgery: Comparison of Alternative Access Transcatheter Aortic Valve Replacement Techniques in the US for 6,341 Patients Considered High-Risk or Inoperative for Aortic Valve Replacement and With Severe Aortic Stenosis: An Analysis From the STS/ACC TVT Registry™

V. H. Thouran¹, V. Babaliaros¹, R. M. Sur², D. Dai³, J. Brennan³, E. L. Sarin¹, J. Rumsfeld⁴, F. H. Edwards⁵, E. Tuzcu⁶, W. Y. Szeto⁷, A. Kirtane⁸, S. Lerakis¹, C. Devireddy¹, S. A. Iturra, J. D. Carroll⁴, D. R. Holmes², F. L. Grover⁴, M. R. Williams⁸, D. M. Shahian¹⁰, M. J. Mack⁹

¹Emory University, Atlanta, GA, ²Mayo Clinic, Rochester,

MN, ³Duke University Medical Center, Durham, NC,

⁴University of Colorado, Denver, ⁵University of Florida,

Jacksonville, ⁶Cleveland Clinic, OH, ⁷University of

Pennsylvania, Philadelphia, ⁸Columbia University

Medical Center, New York, NY, ⁹Baylor University, Plano,

TX, ¹⁰Massachusetts General Hospital, Boston

Discussant: A. Pieter Kappetein, Rotterdam,

The Netherlands

8:45 AM

Richard E. Clark Paper for Congenital Heart Surgery: Characteristics of Patients Undergoing Congenital Heart Surgery Vary Across US Children's Hospitals and Impact Assessment of Hospital Performance: An Analysis of The Society of Thoracic Surgeons Congenital Heart Surgery Database

S. K. Pasquali⁴, M. L. Jacobs¹, J. Gaynor², X. He³, M. Gaies⁴, E. Peterson³, J. C. Hirsch-Romano⁵, J. E. Mayer⁶, J. P. Jacobs⁷

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Clinical Research Institute, Durham, NC, ⁴University

of Michigan, Ann Arbor, ⁵Michigan Congenital Heart

Center, Ann Arbor, ⁶Boston Children's Hospital, MA,

⁷Johns Hopkins All Children's Heart Institute,

St Petersburg, FL

Discussant: David M. Shahian, Boston, MA

9:00 AM

Break

9:30 AM

The Annals of Thoracic Surgery

50th Anniversary Presentation

G. Alexander Patterson, St Louis, MO

*Invited

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

Monday, January 26, 2015



- 9:40 AM Introduction of the President
Mark S. Allen, Rochester, MN
- 9:50 AM Presidential Address
David A. Fullerton, Aurora, CO

9:00 AM – 4:30 PM

Exhibits Open

9:00 AM – 4:30 PM

Scientific Posters Open

10:50 AM – 11:30 AM

BREAK—Visit Exhibits and Scientific Posters

11:30 AM – 12:30 PM

Adult Cardiac Session: Arrhythmia

Moderators: *Vinay Badhwar, Pittsburgh, PA, and J. Scott Rankin, Nashville, TN*

- 11:30 AM Should Patients With Over 5 Years' Duration of Atrial Fibrillation Expect Reasonable Outcomes Following Concomitant Cox Maze Procedure?
N. Ad, *H. Je, G. Pritchard, S. Holmes*
Inova Heart and Vascular Institute, Falls Church, VA
- 11:45 AM Electrophysiological Results After Totally Thoracoscopic Ablation for the Treatment of Lone Persistent Atrial Fibrillation
D. Jeong¹, *M. Kim*¹, *H. Chang*², *Y. Lee*¹, *P. Park*¹
¹*Samsung Medical Center, Seoul, Republic of Korea,*
²*Seoul National University Hospital, Seoul, Republic of Korea*

- 12:00 PM The Effectiveness of Surgical Ablation in Patients With Atrial Fibrillation and Aortic Valve Disease
M. Henn, *C. Lawrance, L. Sinn, J. Miller, R. Schuessler, H. S. Maniar, R. J. Damiano*
Washington University School of Medicine, Barnes Jewish Hospital, St Louis, MO
- 12:15 PM Update on STS Clinical Practice Guidelines on Surgical Ablation
Vinay Badhwar, Pittsburgh, PA

11:30 AM – 12:30 PM

Adult Cardiac Session: Heart Failure

Moderators: *Robert L. Kormos, Pittsburgh, PA, and Matthew A. Romano, Ann Arbor, MI*

- 11:30 AM Axial vs Centrifugal Flow Left Ventricular Assist Devices
Axial: *James W. Long, Salt Lake City, UT**
Centrifugal: *Edwin C. McGee, Chicago, IL*
- 12:00 PM Preoperative Predictors of Right Ventricular Failure Requiring Mechanical Support Following Continuous-Flow Left Ventricular Assist Device Implantation as a Bridge to Transplantation
N. P. Patil, *A. Sabashnikov, P. Mohite, A. Weymann, D. Dhar, D. Garcia Saez, B. Zych, C. Bowles, R. Hards, A. Moza, F. De Robertis, T. Bahrami, M. Amrani, S. Rahman-Haley, N. Banner, A. Popov, A. Simon*
Royal Brompton and Harefield NHS Foundation Trust, London, United Kingdom
- 12:15 PM Do Concomitant Procedures at the Time of Left Ventricular Assist Device Implantation Impact Long-Term Outcomes? Implications by Device Type and Indication
S. Maltais¹, *F. D. Pagan*², *N. Haglund*¹, *M. E. Davis*¹, *J. Schirger*³, *J. M. Stulak*³
¹*Vanderbilt Heart and Vascular Institute, Nashville, TN,*
²*University of Michigan Hospital, Ann Arbor,*
³*Mayo Clinic, Rochester, MN*

11:30 AM – 12:30 PM

Basic Science Research: Adult Cardiac

Moderators: *Afshin Ehsan, Newton, MA, and Thomas G. Gleason, Pittsburgh, PA**

- 11:30 AM The Z-score Normalization of Regional Contractile Function in Dilated Cardiomyopathy Confirms Heterogeneous Contractile Injury
M. Henn, *C. Lawrance, J. Kar, B. Cupps, S. Joseph, H. Craddock, K. Wallace, G. Ewald, M. K. Pasque*
Barnes Jewish Hospital/Washington University, St Louis, MO

*Invited

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

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11:40 AM The Impact of Prolonged Atrial Fibrillation on Atrial and Ventricular Function in a Porcine Model
T. Kazui¹, M. Henn¹, C. Lawrance¹, Y. Watanabe², S. Okada², J. Greenberg², R. Schuessler², R. Damiano²
¹Barnes Jewish Hospital/Washington University, St Louis, MO, ²Washington University School of Medicine, St Louis, MO

11:50 AM AKT2 Regulates Bone Marrow Cell-Mediated Aortic Protection in Mice
S. A. LeMaire, S. Zou, P. Ren, L. Zhang, J. S. Coselli, Y. Shen
Baylor College of Medicine, Houston, TX

12:00 PM Enoximone Protects Myocardial Mitochondrial ATP-Production by Limitation of H⁺-leak-dependent Improvement of $\Delta\Psi_m$ -Stability in Ischemia Reperfusion Injury
S. Sommer, M. Leistner, I. Aleksic, C. Schimmer, C. Scheler, R. Leyh
University Hospital Würzburg, Germany

12:10 PM Cardioplegia and Cardiopulmonary Bypass Decrease Activation of Signal Transducer and Activator of Transcription 3 Pathway in Diabetic Human Myocardial Tissue
A. Wang, S. Sakamuri, K. Owais, T. Huang, A. Pal, J. Hubbard, K. R. Khabbaz, F. Mahmood, R. Matyal
Beth Israel Deaconess Medical Center, Boston, MA

12:20 PM Alcohol and the Heart: A Proteomics Analysis of Pericardium and Myocardium in a Swine Model of Chronic Myocardial Ischemia
N. Y. Elmadhun¹, A. Sadek², A. Sabe¹, A. D. Lassaletta¹, F. W. Selke³
¹Beth Israel Deaconess Medical Center, Boston, MA, ²Cardiovascular Research Center, Warren Alpert Medical School of Brown University, Providence, RI, ³Brown Medical School/Rhode Island Hospital, Providence

11:30 AM – 12:30 PM

Basic Science Research: General Thoracic

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

11:30 AM Using 3D Printing Technology as a Tool for Tracheal Tissue Engineering
T. Goldstein¹, J. Schwartz², D. Grande², S. J. Kwon³, L. Smith⁴, D. Zeltzman³
¹North Shore-LIJ Health System, Manhasset, NY, ²Feinstein Institute for Medical Research, Manhasset, NY, ³North Shore-LIJ Health System, Great Neck, NY, ⁴North Shore-LIJ Health System, New Hyde Park, NY

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

12:00 PM Pulmonary Metastases Exhibit Epigenetic Clonality: Implications for Precision Therapy
E. Reardon¹, D. Straughan², J. Hong², M. Zhang², M. Rao², D. Schrupp²
¹National Cancer Institute, Bethesda, MD, ²National Institutes of Health, Bethesda, MD

12:15 PM Human Lung Fibroblast Inhibits Metastatic Lesion Formation in 4D Lung Cancer Model Seeded With Human Lung Cancer Cell Line
S. Compean¹, D. Mishra¹, M. Thrall¹, X. Liu², E. Massarelli², J. Kurie², M. P. Kim³
¹Houston Methodist Hospital Research Institute, TX, ²The University of Texas, MD Anderson Cancer Center, Houston ³The Methodist Hospital - Weill Cornell Medical College, Houston, TX

11:30 AM – 12:30 PM

Congenital Session: Adult Congenital

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

11:30 AM Anomalous Aortic Origin of the Coronary Artery With Inter-arterial Course: Selection for Surgical Repair With Anatomic- and Function-Based Follow-Up
T. E. MacGillivray, E. N. Feins, D. Defaria Yeh, A. Bhatt, B. Ghoshhajra, I. Inglessis-Azuaje, R. Liberthson
Massachusetts General Hospital, Boston

11:45 AM An Empirically Based Tool for Analyzing Mortality Associated With Adult Congenital Heart Surgery
S. M. Fuller¹, J. P. Jacobs², M. L. Jacobs³, S. K. Pasquali⁷, J. Gaynor⁴, C. E. Mascio⁴, K. Hill⁵, X. He⁵, Y. Kim⁶
¹Children's Hospital of Philadelphia/University of Pennsylvania School of Medicine, ²Johns Hopkins All Children's Heart Institute, St Petersburg, FL, ³The Johns Hopkins School of Medicine, Baltimore, MD, ⁴The Children's Hospital of Philadelphia, PA, ⁵Duke Clinical Research Institute at Duke University, Durham, NC, ⁶University of Pennsylvania, Philadelphia, ⁷University of Michigan, Ann Arbor

12:00 PM Durability of Bioprostheses in Tricuspid Position in Patients With Congenital Heart Disease
M. Burri, J. Hoerer, M. Vogt, J. Cleuziou, J. Kasnar-Samprec, R. Lange, C. Schreiber
German Heart Centre Munich

*Invited

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

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12:15 PM Patterns of Aortopathy and Valve Pathology Differ in Children and Young Adults With Bicuspid Aortic Valve and Marfan's Syndrome

M. Ruzmetov

Children's Hospital of Illinois, Peoria

11:30 AM – 12:30 PM

Critical Care

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

11:30 AM Feasibility, Effectiveness, and Safety of Activated Recombinant Factor VII Use for Intractable Bleeding During Extracorporeal Life Support in Adults

H. A. Welp, A. Rukosujew, H. Deschka, M. Scherer, S. Martens

University Hospital Muenster, Germany

11:45 AM Rotational Thromboelastometry Decreases Blood Product Transfusion in High-Risk Patients Undergoing Cardiac Surgery

K. Yount, L. T. Yarboro, R. Thiele, R. K. Ghanta, I. L. Kron, G. Ailawadi, J. A. Kern, C. Lau

University of Virginia Health System, Charlottesville

12:00 PM Race Is Associated With Mortality in Patients Undergoing Extracorporeal Cardiac Support

T. Chan, J. Di Gennaro, R. Farris, M. Radman, D. McMullan

Seattle Children's Hospital, Washington

12:15 PM Long-Term Survival and Predictors of Mortality in Patients Needing Prolonged Intensive Care Unit Stay Post-Cardiac Surgery

R. Manji¹, B. Hiebert², R. Arora³, M. Moon³, D. Freed⁴, A. H. Menkis³

¹I.H. Asper Clinical Research Institute, Winnipeg, Canada, ²Winnipeg Regional Health Authority Canada,

³St Boniface General Hospital, Winnipeg, Canada,

⁴University of Alberta, Edmonton, Canada

11:30 AM – 12:30 PM

General Thoracic Session: New Techniques

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

11:30 AM Angiotensin II in Donor Lungs Is an Indicator of Graft Quality and Is Associated With Primary Graft Dysfunction After Lung Transplantation

G. Singh¹, J. Costa², M. Biscotti III¹, J. Van Hassel¹, J. R. Sonett², M. Bacchetta¹

¹New York Columbia Presbyterian, NY, ²Columbia University Medical Center, New York, NY

11:45 AM Ex Vivo Evaluation of the Effectiveness of Pulmonary Artery Sealing Using the HARMONIC ACE®+ Shears (HS) for Video-Assisted Thoracoscopic Surgical (VATS) Lobectomy

M. A. Liberman¹, M. Khereba¹, B. S. Nasir¹,

E. Goudie¹, A. Danino², J. Giot², N. Nizard²,

R. Hadjeres², V. Thiffault¹, N. Farrenq¹, P. Ferraro¹

¹CHUM Endoscopic Tracheobronchial and Oesophageal Center (CETOC), University of Montreal, Canada,

²University of Montreal, Canada

12:00 PM Initial Experience and Outcome With Peroral Endoscopic Myotomy (POEM) by a Thoracic Surgeon

S. G. Worrell¹, E. Alicuben², S. DeMeester²

¹University of Southern California, Los Angeles, ²Keck School of Medicine of USC, Los Angeles, CA

12:15 PM Clinical Utility of Endobronchial Ultrasound-Guided Transbronchial Needle Aspiration (EBUS-TBNA) for the Evaluation of Mediastinal Lymphadenopathy Concerning for Lymphoma

K. S. Nason, M. J. Schuchert, J. D. Luketich,

N. A. Christie, L. Pantanowitz, A. Karunamurthy, S. Monaco

University of Pittsburgh Medical Center, PA

11:30 AM – 12:30 PM

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

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

Learning Objectives

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

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

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

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

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

12:30 PM – 1:15 PM

BREAK—Visit Exhibits and Scientific Posters

1:15 PM – 5:15 PM

ACC @ STS

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

Learning Objectives

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

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

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



1:15 PM	Introduction <i>Patrick T. O’Gara, Boston, MA, and Vinod H. Thourani, Atlanta, GA</i>
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Multidisciplinary Management of Coronary Artery Disease (CAD)

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

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

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2:15 PM Comparison of Hybrid Coronary Revascularization vs Coronary Artery Bypass Grafting With Bilateral or Single Internal Mammary Artery Use

J. Rosenblum¹, *R. Harskamp*², *N. Hoedemaker*², *H. Liberman*¹, *R. de Winter*³, *T. A. Vassiliades*⁵, *J. Puskas*⁴, *M. E. Halkos*¹
¹Emory University, Atlanta, GA, ²Duke University, Durham, NC, ³Academic Medical Center, Amsterdam, The Netherlands, ⁴Mount Sinai Beth Israel, New York, NY, ⁵Medtronic, Inc, Mounds View, MN

Mitral Regurgitation (MR)

2:30 PM Therapy for Functional MR Guidelines: Appropriate Evaluation and Who We Should Be Treating
Robert O. Bonow, Chicago, IL

2:38 PM Discussion

2:43 PM Technical Video for the Treatment of Severe Ischemic MR
Steven F. Bolling, Ann Arbor, MI

2:51 PM Decision Making for Repair vs Replacement in Severe Ischemic MR: Update From the NIH CTSN Severe IMR Trial
Michael A. Acker, Philadelphia, PA

2:59 PM Discussion

3:04 PM Case Presentation of Moderate Ischemic MR With Concomitant CAD
Jacob DeLaRosa, Pocatello, ID

3:09 PM Current Management of Moderate Ischemic MR: Update From the NIH CTSN Moderate IMR Trial
Vinod H. Thourani, Atlanta, GA

3:17 PM Discussion

3:22 PM The Optimal Patient for the Percutaneous MitraClip Technique for Degenerative MR
*Saibal Kar, Los Angeles, CA**

3:30 PM The Percutaneous MitraClip Technique for Functional MR: Update From the European Registries and the COAPT Trial
*Francesco Maisano, Milan, Italy**

3:38 PM Discussion

3:43 PM Determinants of Late Outcomes in Women Undergoing Repair of Myxomatous Degeneration
V. Chan, *E. Elmistekawy, M. Ruel, T. G. Mesana*
University of Ottawa Heart Institute, Canada

3:58 PM Break

Management of Atrial Fibrillation

4:14 PM Technique for Batrial Cox-MAZE IV
Vinay Badhwar, Pittsburgh, PA

4:22 PM Guidelines for Medical or Surgical Management of Atrial Fibrillation: Who, When, and Techniques Used
Patrick T. O'Gara, Boston, MA

4:30 PM Discussion

4:35 PM Detection of Atrial Fibrillation Following Surgical Ablation: Conventional vs Continuous Monitoring
R. J. Damiano¹, *C. Lawrance*¹, *L. Saint*¹, *M. Henn*¹, *L. Sinn*¹, *J. Kruse*², *M. Gleva*³, *H. S. Maniar*³, *P. M. McCarthy*², *R. Lee*⁴
¹Barnes Jewish Hospital/Washington University, St Louis, MO, ²Northwestern Memorial Hospital, Chicago, IL, ³Washington University School of Medicine, St Louis, MO, ⁴St Louis University, MO

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

4:50 PM Two Cases I Wish I Had Sent to Surgery
E. Murat Tuzcu, Cleveland, OH

5:03 PM Two Cases I Wish I Had Sent for a Percutaneous Procedure
Gorav Ailawadi, Charlottesville, VA

5:11 PM Discussion

5:29 PM Conclusions

1:15 PM – 5:15 PM

NEW! Evidence and Quality Reshaping Practice

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

Learning Objectives

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

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

*Invited

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

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

- 1:15 PM Introduction
- 1:20 PM The STS Composite Performance Measure for Surgeons: A Report of the STS Quality Measurement Taskforce
D. M. Shahian¹², X. He¹, S. O'Brien¹, P. A. Kurlansky², V. Badhwar³, J. C. Cleveland Jr⁴, F. L. Fazzalar⁵, G. Filardo⁶, A. P. Furnary⁷, M. J. Magee⁸, J. S. Rankin⁹, K. F. Welke¹⁰, J. P. Jacobs¹¹
¹Duke Clinical Research Institute, Durham, NC, ²Florida Heart Research Institute, Miami, ³University of Pittsburgh, PA, ⁴University of Colorado, Aurora, ⁵University of Michigan Medical School, Rochester, ⁶Institute for Health Care Research and Improvement, Dallas, TX, ⁷Starr-Wood Cardiac Group of Portland, PC, OR, ⁸HCA North Texas Division, Dallas, ⁹Vanderbilt University, Nashville, TN, ¹⁰Children's Hospital of Illinois, Peoria, ¹¹Johns Hopkins All Children's Heart Institute, St Petersburg, FL, ¹²Massachusetts General Hospital, Boston
- 1:28 PM Discussant
 Joseph E. Bavaria, Philadelphia, PA
- 1:35 PM Successful Linking of STS and CMS Medicare Data to Examine the Penetration, Completeness, and Representativeness of the STS Adult Cardiac Surgery Database
J. P. Jacobs¹, D. Shahian¹⁵, X. He², S. O'Brien², R. Dokholyan, E. Peterson², V. Badhwar³, J. C. Cleveland Jr⁴, A. P. Furnary⁵, P. A. Kurlansky⁶, J. S. Rankin⁷, K. F. Welke⁸, M. J. Magee⁹, G. Filardo¹⁰, J. Han¹¹, D. McDonald¹¹, D. Schmitz¹¹, F. H. Edwards¹², R. L. Prager¹³, F. L. Grover¹⁴
¹Johns Hopkins All Children's Heart Institute, St Petersburg, FL, ²Duke Clinical Research Institute, Durham, NC, ³University of Pittsburgh, PA, ⁴University of Colorado, Aurora, ⁵Starr-Wood Cardiac Group of Portland, PC, OR, ⁶Florida Heart Research Institute, Miami, ⁷Vanderbilt University, Nashville, TN, ⁸Children's Hospital of Illinois, Peoria, ⁹HCA North Texas Division, Dallas, ¹⁰Institute for Health Care Research and

Improvement, Dallas, TX, ¹¹The Society of Thoracic Surgeons, Chicago, IL, ¹²University of Florida, Jacksonville, ¹³University of Michigan Hospitals, Ann Arbor, ¹⁴University of Colorado, Aurora, ¹⁵Massachusetts General Hospital, Boston

- 1:43 PM Discussant
 Sara K. Pasquali, Ann Arbor, MI
- 1:50 PM The Impact of Modifiable Clinical Variables on Length of Stay Following First-Time Cardiac Surgery
N. Ad¹, S. Holmes¹, G. Pritchard¹, A. M. Speir², L. Halpin¹
¹Inova Heart and Vascular Institute, Falls Church, VA, ²Cardiac, Vascular & Thoracic Surgery Associates, Falls Church, VA
- 1:58 PM Discussant
 Thomas E. MacGillivray, Boston, MA
- 2:05 PM Late Operating Room Start Times Impact Mortality and Cost for Nonemergent Cardiac Surgery
K. Yount, C. Lau, L. T. Yarboro, R. K. Ghanta, I. L. Kron, J. A. Kern, G. Ailawadi
 University of Virginia Health System, Charlottesville, VA
- 2:13 PM Discussant
 V. Seenu Reddy, Nashville, TN*
- 2:20 PM Development, Implementation, and Feasibility of Surgeon-Specific Outcome Reports and of a Surgeon-Led, Continuous Quality Improvement Program in Thoracic Surgery
J. Ivanovic¹, C. Anstee², T. Ramsay³, P. J. Villeneuve², S. Gilbert², D. Maziak², F. Shamji², R. Sundaresan², A. J. Seely¹
¹University of Ottawa, Canada, ²The Ottawa Hospital, Canada, ³Ottawa Hospital Research Institute, Canada
- 2:28 PM Discussant
 Daniel L. Miller, Marietta, GA
- 2:35 PM Moderated Panel Discussion: New Perspectives on STS Guidelines
 Gabriel S. Aldea, Seattle, WA*, Alex G. Little, Tucson, AZ, and John D. Mitchell, Aurora, CO
- 3:00 PM Break
- 3:15 PM Moderated Panel Discussion: New Perspectives of the STS National Database
 Marshall L. Jacobs, Newtown Square, PA, Benjamin D. Kozower, Charlottesville, VA, and Richard L. Prager, Ann Arbor, MI

*Invited

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

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- 3:45 PM Quality Measurement—Past, Present, and Future
David M. Shahian, Boston, MA
- 3:55 PM Transparency and Public Reporting
Jeffrey P. Jacobs, St Petersburg, FL
- 4:05 PM Risk-Adjusted Bundled Care in Cardiac Surgery: Is It Feasible?
K. Yount, J. M. Isbell, Z. Dietch, G. Ailawadi, I. L. Kron, J. A. Kern, C. Lau
University of Virginia Health System, Charlottesville
- 4:13 PM Discussant
Frank L. Fazzalari, Rochester, MI
- 4:20 PM Supporting Cardiothoracic Surgery Reimbursement With STS Data: The Relative Value Scale Update Committee (RUC)
Peter K. Smith, Durham, NC
- 4:30 PM Moderated Panel Discussion: The STS Adult Cardiac Surgery Database and the Genesis, Evolution, and Sustainability of Local and Regional Quality Collaboratives
*Baron L. Hamman, Dallas, TX, William C. Nugent, Lebanon, NH, and Alan M. Speir, Falls Church, VA**

1:30 PM – 3:30 PM

Adult Cardiac Session: Aortic

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

- 1:30 PM Management of Aortic Arch Aneurysms: How Should It Be Done in ER Patients? Total Open
Thomas E. MacGillivray, Boston, MA
- 1:45 PM Management of Aortic Arch Aneurysms: How Should It Be Done in ER Patients? Total Endovascular
Francois Dagenais, Quebec City, Canada
- 2:00 PM Management of Aortic Arch Aneurysms: How Should It Be Done in ER Patients? Hybrid
G. Chad Hughes, Durham, NC
- 2:15 PM Stent Grafting Acute Aortic Dissection: Comparison of DeBakey Extent IIIA vs IIIB
A. A. Arafat, E. E. Roselli, V. Menon, M. Eagleton
Cleveland Clinic Foundation, OH
- 2:30 PM Decision Making for the Management of Type A Dissection Repair in Octogenarians
N. Desai, R. Menon, W. Y. Szeto, J. Gottret, P. Moeller, P. Vallabhajosyula, J. E. Bavaria
Hospital of the University of Pennsylvania, Philadelphia

- 2:45 PM Effects of Dual Arterial Perfusion on Outcome of Patients With Acute DeBakey Type I Aortic Dissection
S. Song, T. Kim, K. Yoo
Gangnam Severance Hospital/Yonsei University College of Medicine, Seoul, Republic of Korea
- 3:00 PM Thoracic Endovascular Aortic Repair Promotes False Lumen Thrombosis and Remodeling of the Thoracic Aorta in Acute Complicated Type B Aortic Dissection
J. Gottret, W. Y. Szeto, P. Vallabhajosyula, R. Menon, P. Moeller, G. Wang, B. Jackson, R. M. Fairman, J. E. Bavaria, N. Desai
Hospital of the University of Pennsylvania, Philadelphia
- 3:15 PM Complex Cusp Repair in Patients Undergoing David's Procedure—Is It Worth It?
H. Baumbach², K. Wachter², R. Nagib², R. Yadav¹, U. Franke²
¹Royal Brompton Hospital, London, United Kingdom, ²Robert Bosch Hospital, Stuttgart, Germany

1:30 PM – 3:30 PM

Adult Cardiac Session: Ischemic

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

- 1:30 PM Total Arterial Coronary Revascularization Is Achievable and Prognostically Effective: A Multi-institutional Analysis
J. Tatoulis¹, B. Buxton², R. Wynne², P. Skillington³
¹Private Medical Centre, Victoria, Australia, ²The University of Melbourne, Australia, ³Royal Melbourne Hospital, Australia
- 1:45 PM Multi vs Single Arterial Coronary Artery Bypass Surgery Across the Left Ventricular Ejection Fraction Spectrum: A Multi-institutional Analysis
T. A. Schwann¹, L. Al-Shaar², R. F. Tranbaugh³, K. R. Dimitrova³, D. M. Hoffman³, C. Geller⁵, M. Engoren⁶, M. R. Bonnell¹, R. H. Habib²
¹University of Toledo Medical Center, OH, ²American University of Beirut, Lebanon, ³Beth Israel Medical Center, New York, NY, ⁵Mount Sinai Beth Israel, New York, NY, ⁶University of Michigan, Ann Arbor
- 2:00 PM Hospital-Level Variation in Infection Rates After Coronary Artery Bypass Grafting Surgery: An Analysis From The Society of Thoracic Surgeons Adult Cardiac Surgery Database
D. S. Likosky¹, A. Wallace⁵, R. L. Prager¹, J. P. Jacobs², S. D. Harrington³, P. Saha-Chaudhuri⁶, P. F. Theurer¹, A. Fishstrom¹, R. Dokholyan⁷, J. S. Rankin⁴, D. Shahian⁸
¹University of Michigan Health System, Ann Arbor,

*Invited

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

Monday, January 26, 2015

²Johns Hopkins All Children's Heart Institute, St Petersburg, FL, ³Advanced Cardiothoracic Surgeons, Clinton Township, MI, ⁴Vanderbilt University, Nashville, TN, ⁵University of Pittsburgh Medical Center, PA, ⁶Duke University Medical Center, Durham, NC, ⁷Duke Clinical Research Institute, Durham, NC, ⁸Massachusetts General Hospital, Boston

- 2:15 PM [Greater Volume of Acute Normovolemic Hemodilution May Aid in Reducing Blood Transfusions After Cardiac Surgery](#)
J. Goldberg¹, T. Paugh², T. A. Dickinson³, J. Fuller⁴, G. Paone⁵, P. F. Theurer², K. Shann⁶, T. M. Sundt⁶, R. L. Prager², D. S. Likosky²
¹Massachusetts General Hospital/Harvard Medical School, Boston, ²University of Michigan Health System, Ann Arbor, ³SpecialtyCare, Nashville, TN, ⁴St John Providence Health System, Detroit, MI, ⁵Henry Ford Hospital, Detroit, MI, ⁶Massachusetts General Hospital, Boston
- 2:30 PM [Red Blood Cell Transfusions Impact Pneumonia Rates After Coronary Artery Bypass Grafting Surgery](#)
D. S. Likosky¹, G. Paone², S. D. Harrington³, P. F. Theurer¹, A. Delucia III⁴, A. Fishstrom¹, R. L. Prager¹
¹University of Michigan Health System, Ann Arbor, ²Henry Ford Hospital, Detroit, MI, ³Advanced Cardiothoracic Surgeons, Clinton Township, MI, ⁴Bronson Methodist Hospital, Kalamazoo, MI
- 2:45 PM [Impact of Comprehensive STS Quality Improvement on Outcomes and Failure to Rescue](#)
D. Chu, P. Chan, L. M. Wei, C. C. Cook, T. G. Gleason, V. Morell, V. Badhwar
University of Pittsburgh Medical Center, PA
- 3:00 PM [Debate: 65-Year-Old Diabetic Female With Triple Vessel Disease and BMI of 35](#)
Bilateral IMA: David P. Taggart, Oxford, United Kingdom*
LIMA and Veins: Robert A. Guyton, Atlanta, GA

1:30 PM – 3:30 PM

Congenital Session: Pediatric Congenital I

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

- 1:30 PM [Over 2 Decades of a Single-Institution Experience With The Ross Procedure: Lessons Learned](#)
Z. Y. Al Halees, B. Fadel, M. Al Shahid, M. Al Amri, Z. Al Bulbul, A. Alomrani, M. Al Ahmadi, J. Alburaiqi
King Faisal Specialist Hospital and Research Center, Riyadh, Saudi Arabia

1:45 PM

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

M. Gillespie², D. McElhinney¹, J. Kreutzer³, W. Hellenbrand⁴, H. El-Said⁵, P. Ewert², L. Bergersen⁶, J. Rhodes⁷, L. Sondergaard⁸, T. Jones⁹
¹NYU Medical Center, New York, ²German Heart Centre Munich, ³The Children's Hospital of Philadelphia, PA, ⁴Yale New Haven Hospital, CT, ⁵Children's Hospital San Diego, CA, ⁶Children's Hospital Boston, MA, ⁷Miami Children's Hospital, FL, ⁸Rigshospitalet-Copenhagen University Hospital, Denmark, ⁹Seattle Children's Hospital, WA

2:00 PM

[The Valved Polytetrafluoroethylene Conduits for Right Ventricular Outflow Tract Reconstruction: Clinical Experience and Mechanical Properties of Bulging Sinuses](#)

T. Shinkawa¹, F. Watanabe², T. Miyazaki³, M. Yamagishi³, M. Imamura¹
¹Arkansas Children's Hospital, Little Rock, ²University of Arkansas, Little Rock, ³Kyoto Prefectural University of Medicine, Japan

2:15 PM

[Hybrid Procedure as an Alternative to Surgical Palliation of High-Risk Infants With Hypoplastic Left Heart Syndrome and Its Variants: Mid-Term Outcomes](#)

M. O. Murphy, H. Bellsham-Revell, G. Morgan, T. Krasemann, E. Rosenthal, S. Qureshi, C. Salih, C. Austin, D. Anderson
Guy's & St Thomas'/Evelina London Children's Hospital, United Kingdom

2:30 PM

[Distal Transverse Arch to Left Carotid Artery Ratio Helps Identify Neonates With Aortic Arch Hypoplasia](#)

M. F. Swartz, B. Simon, J. Cholette, N. Atallah-Yunes, G. M. Alfieris
University of Rochester-Strong Memorial Hospital, NY

2:45 PM

[Evolving Technical Approach and Results in Hypoplastic Left Heart Syndrome With Intact or Highly Restrictive Atrial Septum](#)

F. De Rita¹, A. Hermuzi¹, A. McBrien², M. Chaudhari¹, D. Crossland¹, J. O'Sullivan¹, M. Griselli¹, A. Hasan¹
¹Newcastle Upon Tyne, United Kingdom, ²Freeman Hospital, Newcastle Upon Tyne, United Kingdom

*Invited

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

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- 3:00 PM Potential Molecular Mechanism of Retrograde Aortic Arch Stenosis in the Hybrid Approach to Hypoplastic Left Heart Syndrome
N. Hibino, M. Cismowski, B. Lilly, P. MaConnell, T. Shinoka, J. Cheatham, P. Lucchesi, M. E. Galantowicz, A. Trask
Nationwide Children's Hospital, Columbus, OH
- 3:15 PM Complex Aortic Arch Reconstruction Using Moderate Hypothermia and Antegrade Cerebral Perfusion in Newborns and Children
B. Gupta¹, A. Dodge-Khatami³, M. Taylor², D. Maposa¹, J. Knudson¹, **J. D. Salazar**¹
¹University of Mississippi Medical Center, Jackson, ²Children's Heart Center, Jackson, MS, ³Batson Children's Hospital/The University of Mississippi Medical Center, Jackson

1:30 PM – 3:30 PM

General Thoracic Session: Lung Cancer I

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

- 1:30 PM Free Margin Distance Does Not Influence Recurrence and Survival Rate After R0 Wedge Resection for Stage I Non-Small Cell Lung Cancer
G. Maurizi¹, A. D'Andrilli², A. Ciccone², M. Ibrahim¹, C. Andreotti², S. Tierno², C. Pogg², F. Venuta², E. A. Rendina²
¹University of Rome, Italy, ²Sapienza University of Rome, Italy
- 1:45 PM Outcomes Following Surgery in High-Risk Patients With Early Stage Lung Cancer
M. S. Sancheti, J. Melvan, R. Medbery, F. G. Fernandez, T. Gillespie, Q. Li, J. Binongo, A. Pickens, S. D. Force
Emory University, Atlanta, GA

- 2:00 PM Video-Assisted Thoracoscopic Surgery Is a Safe and Effective Alternative to Open Approach in Anatomical Segmentectomy for Treatment of Non-Small Cell Lung Cancer Patients
G. Ghaly, M. Kamel, A. Nasar, S. Paul, P. Lee, J. Port, B. M. Stiles, N. K. Altorki
New York Presbyterian Hospital/Weill Cornell Medical Center, New York
- 2:15 PM Robotic Lobectomy Does Not Increase Nodal Upstaging Compared to Video-Assisted Thoracoscopic Surgical (VATS) Lobectomy in Clinically Node-Negative Patients With Lung Cancer
B. E. Lee, R. J. Korst, M. Shapiro, E. Kletsman
The Valley Hospital, Ridgewood, NJ
- 2:30 PM Diameter of Solid Tumor Component Alone Should Be Used to Establish T-Stage in Lung Adenocarcinoma
B. M. Burt¹, A. Leung¹, M. Yanagawa², W. Chen¹, C. D. Hoang¹, V. Nair¹, J. B. Shrager¹
¹Stanford University School of Medicine, CA, ²Osaka University Graduate School of Medicine, Japan
- 2:45 PM Angiogenesis Biomarkers May Be Useful in the Management of Patients With Indeterminate Pulmonary Nodules
C. W. Seder¹, J. Kubasiak¹, E. Davila², R. Medeiros¹, R. Pithadia¹, I. Tarhoni¹, C. Fhied¹, H. Alhajjar¹, G. W. Chmielewski¹, W. Warren¹, S. Basu¹, J. Borgia¹, M. Liptay¹
¹Rush University Medical Center, Chicago, IL, ²University of Illinois at Chicago
- 3:00 PM Long-Term Effect of an Interdisciplinary Supportive Care Intervention for Lung Cancer Survivors Following Surgery
D. J. Raz, V. Sun, J. Y. Kim, A. Williams, M. Koczywas, M. Cristea, K. Reckamp, H. Jennifer, B. Tjep, B. Ferrell
City of Hope National Medical Center, Duarte, CA
- 3:15 PM The Impact of Zero-Day Global Reimbursement on Lung Cancer Care
Keith S. Naunheim, St Louis, MO

1:30 PM – 3:30 PM

General Thoracic Session: Lung Transplantation

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

- 1:30 PM Spontaneously Breathing Extracorporeal Membrane Oxygenation Support Provides the Optimal Bridge to Lung Transplantation
M. Schechter, A. M. Ganapathi, B. R. Englum, P. Speicher, B. Gulack, S. Hirji, R. Davis, M. G. Hartwig
Duke University Medical Center, Durham, NC

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

Monday, January 26, 2015

- 1:45 PM [Venous Thromboembolic Complications of Lung Transplantation in the Era of the Lung Allocation Score](#)
C. F. Evans, F. Cheema, J. Kim, I. Timofte, S. Pham, B. P. Griffith, A. Iacono, K. Rajagopal
University of Maryland, Baltimore
- 2:00 PM [Risky Business: Taking the Stigma Out of High-Risk Donation in Lung Transplantation](#)
S. Bansal¹, J. A. Hayanga², D. D. Odell¹, K. Jeong¹, A. Fabio¹, J. D. Luketich¹, J. D'Cunha¹
¹University of Pittsburgh, PA, ²Spectrum Health/ Michigan State University, Grand Rapids
- 2:15 PM [Extracorporeal Membrane Oxygenation as a Bridge to Lung Transplantation: Is There a Volume Threshold for Optimized Survival?](#)
J. A. Hayanga¹, A. Woodwyk¹, C. McGraw¹, A. Lira², H. Kaiser³, R. Girgis⁴, J. D'Cunha², A. Khaghanian⁵
¹Spectrum Health/Michigan State University, Grand Rapids, ²University of Pittsburgh Medical Center, PA, ³The Johns Hopkins Medical Institutions, Baltimore, MD ⁴Spectrum Health - Richard DeVos Heart & Lung Transplant Program, Grand Rapids, MI
- 2:30 PM [Warm, Ex Vivo Lung Preservation and Transport](#)
Abbas Ardehali, Los Angeles, CA
- 3:00 PM [Lung Donor Offer Score: How Can We Use This?](#)
Gabriel Loor, Chanhassen, MN*

1:30 PM – 3:30 PM

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

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

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

Learning Objectives

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

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

- Identify pitfalls in peri- and postoperative management
- Recognize the steps to develop and manage an ECMO program
- Describe regulatory oversight of MCS therapy

Moderator: Shaf H. Keshavjee, Toronto, Canada*

- 1:30 PM [Short-Term Circulatory Support Options for Acute Cardiogenic Shock: New Technologies and Approaches for Success](#)
Charles W. Hoopes, Lexington, KY
- 1:45 PM [Defining a Destination for the Patient on Short-Term Circulatory Support: Steps to Increase Options](#)
Christian Bermudez, Pittsburgh, PA
- 2:00 PM [Strategies for Pulmonary Failure](#)
Matthew D. Bacchetta, New York, NY
- 2:15 PM [Networking to Improve Short-Term Mechanical Circulatory Support Outcomes](#)
Michael F. McGrath, Norfolk, VA
- 2:30 PM [Subclavian Intra-aortic Balloon Pump—Use as an Intermediate Duration Bridge to Decision Device](#)
S. Tuladhar, D. Onsager, V. A. Lonchyna, S. Fedson, G. Sayer, G. Kim, N. Uriel, V. Jeevanandam
The University of Chicago Medical Center, IL
- 2:45 PM [Perioperative Risk Factors for Mid-Term Mortality in Patients Bridged to Transplant With a Continuous-Flow Left Ventricular Assist Device](#)
A. H. Healy¹, J. Stehlik¹, L. Edwards², S. H. McKellar¹, S. Drakos¹, C. H. Selzman¹
¹University of Utah, Salt Lake City, ²International Society for Heart and Lung Transplantation, Addison, TX
- 3:00 PM [Should Marginal Donors Be Utilized in Patients Undergoing Heart Transplantation With Left Ventricular Assist Device Explantation?](#)
S. Maltais¹, M. E. Davis¹, J. M. Stulak², N. Haglund¹
¹Vanderbilt Heart and Vascular Institute, Nashville, TN, ²Mayo Clinic, Rochester, MN
- 3:15 PM [Does Postoperative Blood Pressure Control Influence Development of Aortic Regurgitation Following Continuous-Flow Left Ventricular Assist Device Implantation?](#)
N. P. Patil, P. Mohite, A. Sabashnikov, A. Weymann, D. Dhar, D. Garcia Saez, B. Zych, C. Bowles, R. Hards, A. Popov, F. De Robertis, A. Moza, T. Bahrami, M. Amrani, S. Rahman-Haley, N. Banner, A. Simon
Royal Brompton & Harefield NHS Foundation Trust, London, United Kingdom

*Invited

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

Monday, January 26, 2015

1:30 PM – 3:30 PM

STS/SCA: Considerations in Perioperative Resuscitation of Cardiothoracic Patients

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

Learning Objectives

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

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

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

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



3:30 PM – 4:15 PM

BREAK—Visit Exhibits and Scientific Posters

4:15 PM – 5:15 PM

Surgical Motion Picture Matinee: Adult Cardiac

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

4:15 PM	Advanced Measured Tube Technique for Ensuring the Correct Length of Artificial Chordae in Mitral Valvuloplasty Y. Matsui , Y. Naito, Y. Shingu, S. Wakasa, T. Ooka, T. Tachibana <i>Hokkaido University Graduate School of Medicine, Sapporo, Japan</i>
4:27 PM	Hemi-Commando Procedure With Aortic Valve Homograft: Surgical Technique for Double Valve Endocarditis J. L. Navia , G. Olivares <i>Cleveland Clinic Foundation, OH</i>
4:39 PM	Endovascular Repair of Ascending Aortic Pseudoaneurysm With Transapical Deployment of Thoracic Aortic Stent Graft F. H. McCarthy , P. Vallabhajosyula, J. Gottret, N. Desai, J. E. Bavaria, W. Y. Szeto <i>University of Pennsylvania, Philadelphia</i>
4:51 PM	Mitral Valve Replacement for Repair Failure Using a Stentless Mitral Valve Made From Autologous Pericardium H. Kasegawa , T. Fukui, K. Naito, A. Shimizu, S. Takanashi <i>Sakakibara Heart Institute, Tokyo, Japan</i>

*Invited

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

Monday, January 26, 2015

5:03 PM Repair of Left Ventricular Pseudoaneurysm Following Transapical TAVR
B. Ramlawi, O. Aljabbari, W. Abu Saleh, C. Barker, M. Reardon
Houston Methodist Hospital, TX

4:15 PM – 5:15 PM

Surgical Motion Picture Matinee: Congenital

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

4:15 PM Modified Nikaidoh Operation in a Newborn With Transposition of Great Arteries With a Ventricular Septal Defect and Pulmonary Stenosis
M. Nosal, M. Sagat, R. Poruban, P. Valentik
Children's Heart Centre Slovak Republic, Bratislava, Slovakia

4:27 PM Complete Neonatal Repair of a Patient With Truncus Arteriosus, Left Pulmonary Artery Sling, and Long Segment Tracheal Stenosis
P. V. Anagnostopoulos, E. C. Kenny, A. Peterson, S. Hagen, J. McMurray
University of Wisconsin Hospitals and Clinics, Madison

4:39 PM Right Ventricular Overhaul Operation in Patient With Pulmonary Atresia/Intact Ventricular Septum: Successful Biventricular Conversion After One and a Half Repair Operation
N. Ota¹, S. Sivalingam¹, S. Sano², M. Yakub¹
¹National Heart Institute, Kuala Lumpur, Malaysia,
²Okayama University Graduate School of Medicine and Dentistry, Japan

4:51 PM Robot-Assisted Transitional Atrioventricular Canal Defect Repair and Maze Procedure via Left Atrial Approach
K. Mandal¹, A. Srivastava², L. W. Nifong³, W. Chitwood²
¹The Johns Hopkins University School of Medicine, Baltimore, MD, ²East Carolina Heart Institute, Greenville, NC, ³Brody School of Medicine at East Carolina University, Greenville, NC

5:03 PM Partial Sternectomy to Avoid Compression of Right Ventricle to Pulmonary Artery Conduit in the Adult Patients With Transposition of Great Arteries With Ventricular Septal Defect and Pulmonary Stenosis
J. Kwak¹, C. Lee²
¹Sejong General Hospital, Seoul, Republic of Korea,
²Sejong General Hospital, Bucheon, Republic of Korea

4:15 PM – 5:15 PM

Surgical Motion Picture Matinee: General Thoracic

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

4:15 PM Use of Forced Sternal Elevation in Adult Minimally Invasive Pectus Excavatum Repair
D. E. Jaroszewski¹, J. Lackey¹, L. McMahon³, D. Notrica²
¹Mayo Clinic, Phoenix, AZ, ²Phoenix Children's Hospital, AZ, ³Pediatric Surgeons of Phoenix, AZ

4:27 PM Successful Treatment of Recurrent Catamenial Pneumothorax With a Combined Laparoscopic and Video-Assisted Thoracoscopic (VATS) Approach
M. J. Magee¹, R. Aronoff²
¹HCA North Texas Division, Dallas, ²Medical City Dallas Hospital, TX

4:39 PM Single-Port Thymectomy Using a Subxiphoid Approach
T. Suda, D. Tochii, S. Ashikari, S. Tochii, Y. Takagi
Fujita Health University, Toyoake, Japan

4:51 PM Laparoscopic Resection of a Giant Epiphrenic Diverticulum
A. Ashfaq¹, K. Harold², D.E. Jaroszewski¹
¹Mayo Clinic, Phoenix, AZ, ²Mayo Clinic, Scottsdale, AZ

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

4:15 PM – 5:15 PM

Late-Breaking Abstract Sessions

5:00 PM – 6:30 PM

Scientific Posters and Wine

5:30 PM – 6:30 PM

Business Meeting (STS Members Only)

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

Monday, January 26, 2015

6:45 PM – 7:45 PM 

NEW! STS-PAC Reception: USS Midway Aircraft Carrier Museum

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

7:00 PM – 10:00 PM 

STS Social Event: USS Midway Aircraft Carrier Museum

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



Photo courtesy of the USS Midway Museum.

 Indicates that a ticket is required to attend.

Tuesday, January 27, 2015

6:30 AM – 4:30 PM

Registration: STS 51st Annual Meeting

7:30 AM – 8:30 AM 

Early Riser Session 1: Women in Thoracic Surgery— Practice Management

*Robert S. D. Higgins, Columbus, OH, Peter K. Smith, Durham, NC,
Richard I. Whyte, Boston, MA, and Valerie A. Williams, Cincinnati, OH*

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

Learning Objectives

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

- Explain how to frame a negotiation and the importance of negotiating from all perspectives
- Describe the concept of “BATNA” (best alternative to a negotiated agreement)
- Identify practice growth strategies
- Explain the physician fee-for-service schedule and its components
- Recognize the current and future importance of evaluation and management services for surgeons

Early Riser Session 2: Maintaining Quality Outcomes in Low-Volume Cardiac Surgery Programs: The Dilemma Facing US Government-Managed Hospitals

*B. Zane Atkins, Sacramento, CA, William P. Gunnar, Washington, DC, and
Theodore C. Koutlas, Coeur d’Alene, ID*

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

Learning Objectives

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

- Discuss the challenges faced by cardiac surgeons practicing in low-volume centers at US military and VA medical centers

*Invited

 Indicates that a ticket is required to attend.

- Explain the debate regarding the potential link between operative mortality and volume of cases handled within a cardiac surgery program, and discuss quality measures used to evaluate a cardiac surgery program other than operative mortality
- Discuss the Veterans Health Administration’s dilemma of providing far-reaching access to health care for US veterans, while preserving the highest quality of care
- Identify some of the advantages and disadvantages of a health services system administered by the US Government, especially in the new era of the Affordable Care Act
- Explain the issues surrounding cardiothoracic surgery resident training within these low-volume cardiac surgery programs

Early Riser Session 3: Ask the Experts—Esophageal Benign Disease

*Shanda H. Blackmon, Rochester, MN, Christine L. Lau, Charlottesville, VA,
and M. Blair Marshall, Washington, DC*

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

Learning Objectives

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

- Describe the standard approaches to evaluating a patient with benign esophageal disease
- Describe the operative options when surgically correcting or treating patients with various esophageal disorders
- Recognize pitfalls in certain techniques and approaches

Early Riser Session 4: Clinical Trials in General Thoracic Surgery

*Gail E. Darling, Toronto, Canada, Linda W. Martin, Baltimore, MD, and
Dennis A. Wigle, Rochester, MN**

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

Learning Objectives

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

- Explain accruing and pending studies in thoracic surgical oncology
- Discuss knowledge gaps in clinical trial evidence
- Identify ongoing studies for participation

Early Riser Session 5: Ask the Experts—Pulmonary Regurgitation With Tetralogy of Fallot

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

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

Learning Objectives

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

- Recognize the importance of acute and chronic pulmonary insufficiency in TOF
- Identify the surgical options for valve preservation and repair in the neonate/infant with TOF
- Discuss the various surgical prosthetic options, relevant surgical techniques, and long-term outcomes for the older patient

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

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

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

Learning Objectives

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

- Review pathology-directed strategies in complex degenerative and restrictive mitral valve disease
- Identify technique options and case selection for minimally invasive and robotic mitral surgery
- Identify techniques and lesion sets used for surgical ablation of atrial fibrillation

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

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

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

Learning Objectives

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

- Identify the importance of building personal relationships with patients, families, and referring doctors
- Identify different options for developing a clinical niche and leverage a research niche to help grow the practice
- Recognize that outcomes are of utmost importance and when to not take on challenging cases

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

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

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

Learning Objectives

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

- Identify additional training or credentials that might be necessary in order to transition from a clinical to an administrative role
- Recognize process strategies to accomplish such a career alternative
- Learn to anticipate and circumvent the barriers that exist to obstruct such a career change
- Recognize the resources that may aid in the career transition

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

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

In the modern era, patients undergoing cardiac surgery have a choice in endovascular or open traditional surgical therapies. In addition to transcatheter aortic valve replacement (TAVR), which is utilized in patients with severe aortic stenosis, endovascular technology for mitral and aortic

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disease is becoming more common ground. To accommodate this new technology, practicing cardiac surgeons, as a part of a heart team, will be required to integrate changes in their practice, including the infrastructure for patient evaluation, procedural success, and postoperative long-term follow-up. One of the most important aspects of this changing field is the decision for endovascular vs open surgical techniques. Using case-based scenarios, this session will help attendees further appreciate tips and tricks required for mitigating and managing complications associated with endovascular structural heart techniques. Speakers are experts in the use of the hybrid team for optimal patient care.

Learning Objectives

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

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

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

R. Morton Bolman III, Boston, MA, Joseph A. Dearani, Rochester, MN, Jeffrey P. Jacobs, St Petersburg, FL, William M. Novick, Memphis, TN, Luca A. Vricella, Baltimore, MD, and Samuel Weinstein, New York, NY

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

Learning Objectives

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

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

Early Riser Session 11: Coding and Billing in the ICU as a CT Surgeon

Julie R. Painter, Denver, CO, and Jay G. Shake, Temple, TX

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

*Invited

 Indicates that a ticket is required to attend.

Learning Objectives

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

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

Early Riser Session 12: ABTS 5-Year and 10-Year Milestones

Bryan F. Meyers, St Louis, MO, and Richard J. Shemin, Los Angeles, CA

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

Learning Objectives

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

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

7:30 AM – 8:30 AM 

Early Riser Health Policy Forum: The End of Global Surgical Payments Under Medicare?

Peter K. Smith, Durham, NC, Larry Bucshon, Newburgh, IN, and Courtney Yohe, Washington, DC*

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

Learning Objectives

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

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

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9:00 AM – 12:00 PM

General Session II

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

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

10:00 AM Break

10:45 AM Award Presentations

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

9:00 AM – 3:00 PM

Exhibits Open

9:00 AM – 4:30 PM

Scientific Posters Open

10:00 AM – 10:45 AM

BREAK—Visit Exhibits and Scientific Posters

12:00 PM – 1:00 PM

BREAK—Visit Exhibits and Scientific Posters

12:00 PM – 1:00 PM 

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

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

Learning Objectives

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

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

Facilitator: Robert M. Sade, Charleston, SC

PRO: Richard G. Ohye, Ann Arbor, MI

CON: James Jagers, Aurora, CO*



12:00 PM – 1:00 PM

Residents Luncheon

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

1:00 PM – 3:00 PM

Adult Cardiac Session: General I

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

1:00 PM Low Incidence of Paravalvular Leakage With the Balloon-Expandable SAPIEN 3 Transcatheter Heart Valve
D. Wendt, F. Al-Rashid, P. Kahlert, K. El-Chilali, S. Pasa, R. Erbel, H. G. Jakob, M. Thielmann
West-German Heart Center, University of Duisburg-Essen, Germany

1:15 PM Transcatheter Aortic Valve Replacement (TAVR) With a Self-Expanding Valve and Surgical Aortic Valve Replacement (SAVR) for Aortic Stenosis (AS) in Patients With Prior Coronary Artery Bypass Grafting (CABG)
J. V. Conte¹, J. Popma², J. R. Resar², D. H. Adams³, G. Deeb⁵, N. Kleinman⁴, S. Chetcuti⁵, T. G. Gleason⁶, D. Ohair⁷, G. L. Zorn⁸, M. Reardon⁴

*Invited

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

 Indicates that a ticket is required to attend.

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¹The Johns Hopkins Hospital, Baltimore, MD, ²Johns Hopkins University School of Medicine, Baltimore, MD, ³Mount Sinai Medical Center, New York, NY, ⁴Houston Methodist Hospital, TX, ⁵University of Michigan Health System, Ann Arbor, ⁶University of Pittsburgh, PA, ⁷Aurora Health, Milwaukee, WI, ⁸Kansas University Medical Center, Kansas City, ⁹Beth Israel Deaconess Medical Center, Boston, MA

1:30 PM A Recalibration Tool to Correct the Overestimation of Risk Provided by the STS Online Risk Calculator for Patients Presenting for AVR After Prior CABG: An Analysis Using the STS Adult Cardiac Surgery Database

C. M. Vassileva¹, S. F. Aranki², M. Brennan³, T. Kaneko², X. He⁴, J. S. Gammie⁵, R. M. Suri⁶, V. H. Thourani⁷, S. R. Hazelrigg¹, P. M. McCarthy⁸
¹Southern Illinois University School of Medicine, Springfield, ²Brigham and Women's Hospital, Boston, MA, ³Duke University, Durham, NC, ⁴Duke Clinical Research Institute, Durham, NC, ⁵The University of Maryland, Baltimore, ⁶Mayo Clinic, Rochester, MN, ⁷Emory University, Atlanta, GA, ⁸Northwestern University/Northwestern Memorial Hospital, Chicago, IL

1:45 PM Dissection in Patients With Bicuspid Aortic Valve-Associated Aneurysms

C. Wojnarski, J. Idrees, E. E. Roselli, E. Blackstone, L. G. Svensson, B. W. Lytle
Cleveland Clinic Foundation, OH

2:00 PM Hemodialysis Patients Undergoing Transcatheter Aortic Valve Replacement in the United States: A Propensity-Matched Comparison

D. Kobrin¹, F. H. McCarthy¹, H. Herrmann², S. Anwaruddin¹, S. Kobrin¹, W. Y. Szeto¹, J. E. Bavaria¹, P. Groeneveld¹, N. Desai¹
¹University of Pennsylvania, Philadelphia, ²Hospital of the University of Pennsylvania, Philadelphia

2:15 PM Magnitude of Negative Impact of Preoperative Heart Failure on Mortality During Aortic Valve Replacement in the Medicare Population

C. M. Vassileva¹, T. Telila², S. Markwell¹, S. R. Hazelrigg¹
¹Southern Illinois University School of Medicine, Springfield, ²Wayne State University, Detroit, MI

2:30 PM Diagnostic Balloon Aortic Valvuloplasty as a Modality to Triage Aortic Valve Replacement in Patients With an STS Risk of >15%

K. L. Greason
Mayo Medical Center, Rochester, MN

2:45 PM Prospective, Randomized Clinical Trial of Titanium Fasteners Compared to Hand-Tied Knots in Open Aortic Valve Surgery: Assessment of Time Savings, Cost, and Safety

C. Y. Lee, J. Lehoux, P. A. Knight
University of Rochester Medical Center, NY

1:00 PM – 3:00 PM

Adult Cardiac Session: Mitral Valve

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

1:00 PM 100% Repairability of Degenerative Mitral Regurgitation: Results of a Dynamic Engineered Approach

G. M. Lawrie¹, W. A. Zoghbi², S. H. Little², E. A. Earle², N. Earle², D. Shah²
¹Texas Surgical Associates, Houston, ²Houston Methodist DeBakey Heart & Vascular Center, TX

1:15 PM Gender Differences in Patient Presentation, Procedural Aspects, and Early Outcome in Isolated Mitral Valve Surgery

M. Mokhles¹, S. Siregar², M. Versteegh², L. Noyez³, B. van Putte⁴, A. Vonk⁵, J. Roos-Hesselink¹, A. Bogers¹, J. Takkenberg¹
¹Erasmus University Medical Center, Rotterdam, The Netherlands, ²Leiden University Medical Center, The Netherlands, ³University Hospital Nijmegen St Radboud, The Netherlands, ⁴St Antonius Hospital, Nieuwegein, The Netherlands, ⁵VU Medical Center, Amsterdam, The Netherlands

1:30 PM Long-Term Outcome of Tricuspid Valve Repair for Functional Tricuspid Regurgitation: The Berlin Experience

A. Khan, E. B. Delmo Walter, T. Komoda, R. Hetzer
Deutsches Herzzentrum Berlin, Germany

1:45 PM The Expanding Role of Robotics in Mitral Valve Surgery With and Without Concomitant Procedures: A Single Institutional Experience of 1,257 Consecutive Cases

D. Murphy¹, J. Miller¹, S. K. Macheers², J. Olsen², A. Herzog², S. Drobka², E. L. Sarin¹, V. H. Thourani¹, R. Guyton¹, M. E. Halkos¹
¹Emory University, Atlanta, GA, ²Emory St Joseph's Hospital, Atlanta, GA

2:00 PM Early Results of Mitral Valve Repair in Barlow Disease With Partial or Complete Rigid Rings: A Propensity-Matched Analysis

C. Muneretto, G. Bisleri, L. Bagozzi, A. Repossini, C. Giacomini, N. Berlinghieri, E. Chiari
University of Brescia Medical School, Italy

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

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

2:30 PM Debate: 45-Year-Old, Obese Woman With Barlow's Valve

Use of Open Resection: David H. Adams, New York, NY*

Use of Minimally Invasive Non-Resection: Michael A. Borger, Leipzig, Germany

1:00 PM – 3:00 PM

Congenital Session: Pediatric Congenital II

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

1:00 PM Does the Type of Primary Repair Influence Mode of Postrepair Pulmonary Vein Stenosis and Reintervention in Patients With Total Anomalous Pulmonary Venous Drainage?

M. Lo Rito, T. Gazzaz, A. Saedi, D. Chetan, G. S. Van Arsdell, C. A. Caldarone, S. Yoo, O. Honjo
The Hospital for Sick Children, Toronto, Canada

1:15 PM Surgical Repair of Pulmonary Atresia/Ventricular Septal Defect/Major Aortopulmonary Collaterals With Absent Intra-pericardial Pulmonary Arteries

S. Carrillo¹, R. D. Mainwaring², W. Patrick², N. Watanabe², V. M. Reddy³, F. L. Hanley⁴
¹Lucile Packard Children's Hospital at Stanford University, Palo Alto, CA, ²Stanford University School of Medicine, CA, ³Stanford University - Falk Center CRVB, CA, ⁴Stanford University, CA

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

B. Alsoufi, M. Mori, K. R. Kanter, M. Wolf, C. Samai, M. Ferguson, B. E. Kogon
Emory University, Atlanta, GA

1:45 PM Surgical Reconstruction of Peripheral Pulmonary Arteries: Strategies, Outcomes, and New Classification

A. Alkhalidi, O. Tamimi
King Abdulaziz Medical City, Riyadh, Saudi Arabia

2:00 PM Improving Surgical Outcome of Patients With Right Atrial Isomerism Complicated With Pulmonary Atresia and Major Aortopulmonary Collateral Arteries

Y. Ide, M. Murata, K. Sakamoto
Mt Fuji Shizuoka Children's Hospital, Japan

2:15 PM Metrics of Surgical Quality Predict Hospital Length of Stay in Patients With Congenital Heart Disease

E. Johnson¹, M. Zubair¹, L. Armsby¹, G. Burch¹, M. Good¹, M. Lasarev¹, A. Muralidaran², S. M. Langley¹
¹Oregon Health and Science University, Portland, ²Doernbecher Children's Hospital at Oregon Health and Science University, Portland

2:30 PM Is Atrioventricular Valve Regurgitation a Risk Factor in Functional Single Ventricle With Heterotaxy Syndrome?

K. Na¹, W. Kim², E. Choi¹, S. Cho¹
¹Seoul National University Hospital, Republic of Korea, ²Seoul National University Children's Hospital, Republic of Korea

2:45 PM Skeletonization of the Recurrent Laryngeal Nerve During Norwood and Aortic Arch Repair

K. Sugimoto¹, H. Prata², C. P. Brizard², I. Konstantinov¹, Y. D'Udekem²
¹Royal Children's Hospital, Melbourne, Australia, ²Royal Children's Hospital, Parkville, Australia

1:00 PM – 3:00 PM

General Thoracic Session: Esophageal

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

1:00 PM Predictors of Lymph Node Metastasis in Surgically Resected T1 Esophageal Cancer

A. Dubecz¹, M. Schweigert², N. Solymos³, H. Stein¹
¹Klinikum Nuremberg, Germany, ²Klinikum Dresden Friedrichstadt, Germany, ³Szent István University, Budapest, Hungary

1:15 PM Preoperative Chemoradiation Therapy vs Chemotherapy in Patients Undergoing En Bloc Esophagectomy for Locally Advanced Esophageal Adenocarcinoma: Does Radiation Add Value?

J. Spicer¹, B. M. Stiles², M. Sudarshan³, A. Correa¹, L. E. Ferri⁴, N. K. Altorki², W. L. Hofstetter¹
¹University of Texas MD Anderson Cancer Center, Houston, ²Weill Cornell Medical College, New York, NY, ³McGill University, Montreal, Canada, ⁴McGill University Health Centre, Montreal, Canada

1:30 PM Identifying Esophageal Cancer Patients at Risk for Pre- vs Postdischarge Venous Thromboembolism After Esophagectomy and the Case for Selective Extended Chemoprophylaxis

J. T. Martin¹, A. Mahan¹, V. A. Ferraris², S. P. Saha¹, T. W. Mullett², J. B. Zwischenberger¹, C. Tzeng¹
¹University of Kentucky, Lexington, ²University of Kentucky Chandler Medical Center, Lexington

*Invited

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

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1:45 PM Development of a Risk Score Model Using Preoperative Variables to Predict Mortality and Major Morbidity After Esophagectomy

J. J. Reinersman¹, E. Habermann¹, M. S. Allen¹, C. Deschamps², K. Thomsen¹, F. C. Nichols¹, K. Shen¹, D. A. Wigle¹, S. D. Cassivi¹
¹Mayo Clinic, Rochester, MN, ²Fletcher Allen Health Care - University of Vermont, Burlington

2:00 PM Minimally Invasive vs Open Esophagectomy for Esophageal Cancer: A Comparison of Outcomes From The Society of Thoracic Surgeons National Database

S. Sihag¹, A. Kosinski², P. H. Schipper³, H. Gaissert¹
¹Massachusetts General Hospital, Boston, ²Duke Clinical Research Institute, Durham, NC, ³Oregon Health and Science University, Portland

2:15 PM Measuring Survival Benefit of Postresection Adjuvant Chemotherapy for Patients With Positive Lymph Nodes After Induction Chemoradiotherapy and Resection of Esophageal Cancer

A. Brescia¹, J. Musick², J. Bell³, T. Crabtree², B. Meyers⁴
¹St Louis University School of Medicine, MO, ²Barnes-Jewish Hospital/Washington University in St Louis, MO, ³Washington University School of Medicine, St Louis, MO, ⁴Washington University, St Louis, MO

2:30 PM Optimizing Functional Outcome After Esophagectomy
Kenneth A. Kesler, Indianapolis, IN

2:45 PM Serial Drain Amylase Levels Are Better than Barium Swallow in Ruling Out Anastomotic Leak Following Esophagectomy and May Safely Allow for Early Discharge

P. A. Linden, **Y. Perry**, J. Kwong
University Hospitals Case Medical Center, Cleveland, OH

1:00 PM – 3:00 PM

General Thoracic Session: Lung Cancer II

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

1:00 PM A Decision and Cost-Effectiveness Analysis of Surgical Resection in Clinical Stage IIIA Non-Small Cell Lung Cancer at Academic and Non-Academic Centers

P. P. Samson¹, A. Pate², C. Robinson², D. Morgensztern², S. Chang², G. Colditz², S. Waqar², T. P. Crabtree³, A. S. Krupnick³, S. R. Broderick⁴, D. Kreisel⁵, G. A. Patterson², B. F. Meyers², V. Pur²
¹Washington University in St Louis School of Medicine,

Webster Groves, MO, ²Washington University School of Medicine, St Louis, MO, ³Barnes-Jewish Hospital/Washington University in St Louis, MO, ⁴St Luke's Hospital, Chesterfield, MO

1:15 PM The Impact of Lymph Nodes Downstaging on Survival After Induction Chemotherapy for pN2 Non-Small Cell Lung Cancer

L. Spaggiari, M. Casiraghi, A. Borri, F. Petrella, P. Solli, J. Guarize, P. Maisonneuve
European Institute of Oncology, Milan, Italy

1:30 PM The Effects of a Multidisciplinary Care Conference on the Timeliness, Quality, and Cost of Care in Patients With Non-Small Cell Lung Cancer

R. K. Freeman, A. J. Ascoti, M. Dake, R. Mahidhara
St Vincent Hospital and Health System, Indianapolis, IN

1:45 PM Salvage Pulmonary Resection for Stage III Non-Small Cell Lung Cancer After High-Dose Chemoradiotherapy

K. Suzuki¹, S. Oh², T. Matsunaga², K. Takamochi²
¹Juntendo School of Medicine, Tokyo, Japan, ²Juntendo University, Tokyo, Japan

2:00 PM Debate: Persistent N2 Disease Following Induction Therapy

PRO: Stephen G. Swisher, Houston, TX
CON: Scott J. Swanson, Boston, MA

1:00 PM – 3:00 PM

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

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

Learning Objectives

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

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

Moderators: Stephen D. Cassivi, Rochester, MN, and J. Michael DiMiao, Dallas, TX

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

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

1:00 PM – 3:00 PM

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

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

Learning Objectives

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

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

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

1:00 PM	Technical Arch Options for Type A Dissection <i>Joseph E. Bavaria, Philadelphia, PA, and Ruggero De Paulis, Rome, Italy</i>
1:15 PM	Axillary Artery Cannulation in Penn A Acute Aortic Dissection: Simple, Straightforward, But Is It Always Safe? M. Buonocore¹, A. Caiazzo¹, C. Amarelli², G. Petrone¹, G. Nappi¹, M. Scardone³, P. Santè¹ <i>¹Second University of Naples, Italy, ²Az dei Colli, Naples, Italy, ³Monaldi Hospital, Naples, Italy</i>
1:30 PM	Hybrid Type II Debranching Arch for Acute DeBakey I Dissection <i>Jehangir J. Appoo, Calgary, Canada</i>

1:45 PM	Aggressive Aortic Arch Replacement Strategy for Type A Dissection Based on Carotid Arterial Involvement or Intra-Arch Tear: Following a Strict Neurocerebral Protection Protocol Improves Outcomes <i>D. Trivedi, F. Navid, J. Balzer, T. G. Gleason</i> <i>University of Pittsburgh, PA</i>
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2:00 PM	Frozen Elephant Trunk for DeBakey Type I Dissection <i>Malakh L. Shrestha, Hannover, Germany</i>
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2:15 PM	Optimal Technical Strategy for Acute DeBakey I Dissection: The Zone 2 Arch (Video) <i>Nimesh Desai, Philadelphia, PA</i>
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2:30 PM	Is Total Arch Replacement Associated With Worse Outcomes During Repair of Acute Type A Aortic Dissection?
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R. Rice¹, H. Sandhu², S. Leake¹, K. Charlton-Ouw¹, A. Azzadeh¹, T. C. Nguyen³, C. Miller¹, H. J. Safi¹, A. L. Estrera¹

¹University of Texas Health Science Center, Houston,

²University of Texas Medical School, Houston,

³University of Texas Houston - Memorial Hermann

2:45 PM	Optimal Technical Strategy for Acute DeBakey I Dissection: Antegrade Thoracic Endovascular Aneurysm Repair With Hemi-Arch Procedure <i>Alberto Pochettino, Rochester, MN*</i>
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1:00 PM – 3:00 PM

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

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

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

Learning Objectives

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

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

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

*Invited

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

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- 1:00 PM **Alternative Surgical Approaches to Device Implantation: Evidence for a Better Outcome?**
*Edwin C. McGee, Chicago, IL**
- 1:15 PM **Putting the Pulse Back Into Continuous Flow Pumps: Importance of Pulse and MCS Device Complications**
Robert L. Kormos, Pittsburgh, PA
- 1:30 PM **Optimal Management of Valvular Heart Disease at MCS Device Implant**
Scott C. Silvestry, St Louis, MO
- 1:45 PM **Increasing Frequency of Left Ventricular Assist Devices Exchange in the United States: Is There Cause for Concern?**
F. H. McCarthy¹, *D. Kobrin¹, J. Rame¹, P. Groeneveld¹, M. A. Acker², N. Desai¹*
¹University of Pennsylvania, Philadelphia, ²University of Pennsylvania Medical Center, Philadelphia
- 2:00 PM **Left Ventricular Assist Device Inflow Position and Pump Migration Adversely Impact LVAD Function**
T. Kazui¹, *A. Zhang¹, J. Greenberg², A. Itoh¹, A. Keith², G. Ewald³, S. C. Silvestry²*
¹Barnes-Jewish Hospital/Washington University in St Louis, MO, ²Washington University School of Medicine, St Louis, MO
- 2:15 PM **Contributory Role of PET-CT in Diagnosis and Clinical Management of Infections in Patients Supported With a Continuous-Flow Left Ventricular Assist Device**
A. Maria Dell Aquila¹, *S. Mastrobuoni², S. Alles¹, J. Sindermann¹, M. Scherer¹*
¹University Hospital Münster, Germany, ²St Luc's Hospital, Universite Catholique du Louvain, Brussels, Belgium

*Invited

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

- 2:30 PM **Long-Term Progression of Aortic Insufficiency Is Less in Patients Supported With HVAD LVADs Compared to HeartMate II Patients**
S. C. Silvestry¹, *T. Kazui², A. Keith², G. Ewald³, A. Itoh³*
¹Washington University in St Louis, MO, ²Washington University School of Medicine, St Louis, MO, ³Barnes-Jewish Hospital/Washington University in St Louis, MO
- 2:45 PM Discussion

1:00 PM – 5:00 PM

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

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

Learning Objectives

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

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

Moderator: *Edward D. Verrier, Seattle, WA*

- 1:00 PM **Welcome and Introduction**
- 1:10 PM **Standards for Technical Skill Proficiency: Can Such Skills Be Measured and Applied?**
James I. Fann, Stanford, CA, and Paul T. Sergeant, Leuven, Belgium
- 1:25 PM Discussion

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- 1:40 PM JCTSE Creation of a Content and Learning Management System: Potential Global Applicability
Craig J. Baker, Los Angeles, CA, and Stephen C. Yang, Baltimore, MD
- 1:55 PM Discussion
- 2:10 PM Intercollegiate Surgical Curriculum Programme: Lessons Learned in Curriculum Development/Can Such Efforts Be Globalized?
Chris Munsch, Leeds, United Kingdom
- 2:25 PM Discussion
- 2:40 PM Can Formative Feedback and Electronic Curriculum Design Provide Meaningful Alternatives to Summative Examinations?
Ara A. Vaporciyan, Houston, TX
- 2:55 PM Discussion
- 3:10 PM Break
- 3:25 PM Perspectives of the European Board of Thoracic and Cardiovascular Surgery: Are Credentialing Standards Local?
Timothy R. Graham, Birmingham, United Kingdom, and Jose L. Pomar, Barcelona, Spain
- 3:40 PM Discussion
- 3:55 PM Perspectives of the Asian Society of Cardiovascular and Thoracic Surgery: Representing 60% of the World Population and Immense Surgical Training Challenges
Yuichi Ueda, Nara, Japan
- 4:10 PM Discussion
- 4:20 PM Perspectives of the Brazilian Society of Cardiovascular Surgery: Would Standardizing the Curriculum Improve Competency?
Adib D. Jatene, São Paulo, Brazil, and Walter J. Gomes, São Paulo, Brazil*
- 4:35 PM Discussion
- 4:45 PM Panel Discussion
Friedhelm Beyersdorf, Freiburg, Germany, Kotturathu M. Cherian, Chennai, India*, Kazuhiro Hashimoto, Tokyo, Japan, and A. Pieter Kappetein, Rotterdam, The Netherlands*

3:00 PM – 3:30 PM

BREAK—Visit Scientific Posters



3:30 PM – 5:30 PM

Adult Cardiac Session: Aortic Valve

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

- 3:30 PM Transfemoral Transcatheter Aortic Valve Replacement Will Replace Aortic Valve Replacement in Aortic Stenosis Patients by 2017: Will You Be Left Behind?
Joseph E. Bavaria, Philadelphia, PA
- 3:45 PM Techniques for and State-of-the-Art Lecture for Aortic Valve Repair in Patient With Aortic Insufficiency
Gebrine El-Khoury, Brussels, Belgium
- 4:00 PM The Prognostic Impact of Chronic Lung Disease in 12,139 Patients Undergoing Transcatheter Aortic Valve Replacement: Results From the STS/ACC TVT Registry™
R. M. Suri¹, *V. H. Thourani², M. Brennan³, K. L. Greason⁴, D. Dai³, V. Mathew¹, V. T. Nkomo¹, A. Zajarias⁵, C. Rihal¹, C. M. Vassileva⁶, M. J. Mack⁷, D. R. Holmes¹*
¹Mayo Clinic, Rochester, MN, ²Emory University, Atlanta, GA, ³Duke University, Durham, NC, ⁴Mayo Medical Center, Rochester, MN, ⁵Washington University, St Louis, MO, ⁶Southern Illinois University School of Medicine, Springfield, ⁷Baylor University, Plano, TX
- 4:15 PM Early Surgery for Infective Endocarditis With Cerebral Emboli Is Not Associated With Worsened Postoperative Outcomes
R. Sorabella¹, *S. Han², M. Grbic¹, H. Yerebakan¹, S. Vasan², M. Najjar⁴, E. Castillero², J. Vandenberg², D. Lambert², P. A. Kurlansky³, M. Williams¹, Y. Naka¹, M. Argenziano¹, C. Smith¹, H. Takayama⁴, B. Kalesan¹, R. Gordon¹, I. George¹*

*Invited

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¹Columbia University College of Physicians and Surgeons, New York, NY, ²Columbia University, New York, NY, ³Florida Heart Research Institute, Miami, ⁴Columbia University Medical Center, New York, NY

- 4:30 PM [Sutureless vs Sutured Bioprostheses: A Single Center, Propensity-Matched Study](#)
A. Messina, E. Villa, M. Cirillo, M. Dalla Tomba, G. Troise
Poliambulanza Foundation Hospital, Brescia, Italy
- 4:45 PM [Transcatheter Aortic Valve Replacement in 531 Nonagenarians: An Analysis of the PARTNER Randomized and Nonrandomized Continued Access Trial](#)
V. H. Thourani¹, C. Don², S. Kodali⁶, J. Rajeswaran³, R. M. Suri⁴, G. S. Aldea⁵, E. Blackstone³, V. Babaliaros¹, M. R. Williams⁶, R. Makkar⁷, L. G. Svensson³, S. R. Kapadia³, A. Pichard⁸, W. Y. Szeto⁹, B. G. Leshnowar¹⁰, G. Ailawadi¹¹, H. S. Maniar¹², M. Leon⁶, M. J. Mack¹³
¹Emory University, Atlanta, GA, ²University of Washington, Seattle, ³Cleveland Clinic, OH, ⁴Mayo Clinic, Rochester, MN, ⁵University of Washington Medical Center, Seattle, ⁶Columbia University Medical Center, New York, NY, ⁷Cardiovascular Intervention Center, Los Angeles, CA, ⁸Medstar Washington Hospital Center, Washington, DC, ⁹University of Pennsylvania, Philadelphia, ¹⁰Emory University School of Medicine, Atlanta, GA, ¹¹University of Virginia Health System, Charlottesville, ¹²Washington University School of Medicine, St Louis, MO, ¹³Baylor University, Plano, TX
- 5:00 PM [Contemporary Outcomes of Reoperative Aortic Valve Replacement: A Reference Guide to Valve-in-Valve Transcatheter Aortic Valve Replacement—Findings From the STS Adult Cardiac Surgery Database](#)
T. Kaneko¹, C. M. Vassileva², B. R. Englum³, S. Kim³, P. Saha-Chaudhuri⁶, M. Yammine¹, J. Brennan³, R. M. Suri⁴, V. H. Thourani⁵, S. F. Aranki¹
¹Brigham and Women's Hospital, Boston, MA, ²Southern Illinois University School of Medicine, Springfield, ³Duke University Medical Center, Durham, NC, ⁴Mayo Clinic, Rochester, MN, ⁵Emory University, Atlanta, GA, ⁶Duke University, Durham, NC
- 5:15 PM [Five-Year Clinical and Hemodynamic Outcomes Following Transcatheter Aortic Valve Implantation](#)
A. D'Onofrio, M. Facchin, R. Bianco, G. Tarantini, E. Manzan, L. Besola, C. Tessari, M. Napodano, P. Buja, G. Isabella, G. Gerosa
University of Padova, Italy

3:30 PM – 5:30 PM

Adult Cardiac Session: General II

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

- 3:30 PM [Frailty in the Cardiac Surgical Patient: How Should We Measure It?](#)
L. Halpin, S. Holmes, C. Miller, D. Lamont, D. Shuman,
N. Ad
Inova Heart and Vascular Institute, Falls Church, VA
- 3:45 PM [HITting the Target: A Retrospective Quality Review of the Diagnosis and Treatment of Heparin-Induced Thrombocytopenia \(HIT\) in a Quaternary Center](#)
J. Konen³, K. Nguyen³, C. Swenson³, M. Merren⁴, T. Wainscott¹, T. A. Timek¹, **P. Wilton**²
¹West Michigan Cardiothoracic Surgeons PLC, Grand Rapids, ²Spectrum Health, Grand Rapids, MI, ³Michigan State University College of Human Medicine, East Lansing, ⁴Michigan State University College of Human Medicine, East Lansing/Spectrum Health, Grand Rapids, MI
- 4:00 PM [Outcomes of Elective Ascending Aorta Repair: Comparison of Isolated vs Multicomponent Operations](#)
J. Idrees, E. E. Roselli, D. Johnson, A. Lowry, J. Reside, E. Blackstone, L. G. Svensson
Cleveland Clinic Foundation, OH
- 4:15 PM [Preoperative Renal Function Predicts Hospital Costs and Length of Stay in Coronary Artery Bypass Grafting: A Society of Thoracic Surgeons National Database Analysis](#)
D. LaPar², J. B. Rich¹, J. Isbell², C. Brooks², I. Crosby³, L. Yarboro², R. K. Ghanta³, J. A. Kern³, M. A. Quader⁴, A. M. Speir⁵, G. Ailawadi³
¹Mid-Atlantic Cardiothoracic Surgeons Ltd, Norfolk, VA, ²University of Virginia, Charlottesville, ³University of Virginia Health System, Charlottesville, ⁴Virginia Commonwealth University, Richmond, ⁵Cardiac, Vascular & Thoracic Surgery Associates, Falls Church, VA
- 4:30 PM [Renal Dysfunction and Hemodilution: What Is the Acceptable Hematocrit Threshold on Cardiopulmonary Bypass?](#)
P. Narayan¹, R. Ghatanatt², A. Telj³, K. Roy Chowdhuri², A. Mondal², G. Sengupta², M. Datta²
¹NH RN Tagore Hospital, Kolkata, India, ²SSKM Hospital and IPGME&R, Kolkata, India, ³Shri B.M.Patil Medical College, Bijapur, India

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

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- 4:45 PM **Establishing the “Real World” Cost-Effectiveness of Transcatheter Aortic Valve Replacement: A Propensity-Matched STS National Database Analysis**
G. Ailawad², **D. J. LaPar**³, A. M. Speir¹, R. K. Ghanta², I. Crosby², M. A. Quader⁴, J. B. Rich⁵
¹Cardiac, Vascular & Thoracic Surgery Associates, Falls Church, VA, ²University of Virginia Health System, Charlottesville, ³University of Virginia, Charlottesville, ⁴Virginia Commonwealth University, Richmond, ⁵Mid-Atlantic Cardiothoracic Surgeons Ltd, Norfolk, VA
- 5:00 PM **Is Ascending Aorta Replacement During Aortic Valve Replacement Free of Risk?**
J. Goldberg¹, J. Kim², S. Melnitchouk², J. N. Baker², J. D. Walker², G. Vlahakes², T. E. MacGillivray², T. M. Sundt²
¹Massachusetts General Hospital, Harvard Medical School, Lebanon, NH, ²Massachusetts General Hospital, Harvard Medical School, Boston
- 5:15 PM **Mid-Term Results of Valve-Sparing Aortic Root Replacement in Patients With Expanded Indications**
S. Miyahara¹, K. Ymanaka¹, Y. Nomura¹, N. Morimoto¹, T. Inoue², M. Matsumori², K. Okada¹, Y. Okita²
¹Kobe University Graduate School of Medicine, Japan, ²Kobe University, Japan

3:30 PM – 5:30 PM

Cardiothoracic Surgical Education

Moderators: Shari L. Meyerson, Chicago, IL, and Ara A. Vaporciyan, Houston, TX

- 3:30 PM **Automated Video Analysis of Surgical Dexterity Correlates Highly With Expert Evaluation: Proof of Concept for a New Technique to Expand Surgical Simulation Training**
E. L. Sarin¹, Y. Sharma², M. E. Halkos¹, V. H. Thourani¹, I. Essa²
¹Emory University, Atlanta, GA, ²Georgia Institute of Technology, Atlanta
- 3:45 PM **A Decade of Change: Training and Career Paths of Cardiothoracic Surgery Residents 2003-2014**
E. H. Stephens¹, D. Odell¹², W. Stein², D. LaPar³, W. F. Denino¹⁴, M. Aftab⁹, K. Berfield¹⁷, A. L. Eilers¹⁵, S. S. Groth¹², J. F. Lazar⁴, M. P. Robich¹³, A. A. Shah⁵, D. Smith⁶, C. T. Stock¹⁶, V. Tchantchaleishvili⁷, C. M. Mery⁸, J. W. Turek⁹, J. D. Salazar¹⁰, T. C. Nguyen¹¹
¹Columbia University, New York, NY, ²Emory University, Atlanta, GA, ³University of Virginia, Charlottesville,

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- 4:00 PM **A Case Simulator to Help Evaluate Residency Program Volume in an Era of Changing Technology**
T. Grenda¹, T. Ballard¹, A. Obi¹, W. Pozehl¹, R. Chen¹, M. Daskin¹, F. Seagull², A. Cohn⁴, R. M. Reddy¹
¹University of Michigan, Ann Arbor, ²University of Michigan Medical School, Ann Arbor, ⁴Center for Healthcare Engineering and Patient Safety, University of Michigan, Ann Arbor

- 4:15 PM **Predictors of Career Choice Among Cardiothoracic Surgery Trainees**
V. Tchantchaleishvili¹, D. LaPar⁷, D. Odell⁸, W. Stein¹⁰, M. Aftab⁹, K. Berfield¹⁴, A. L. Eilers¹², S. S. Groth⁸, J. F. Lazar², M. P. Robich⁹, A. A. Shah³, D. Smith⁴, E. H. Stephens⁵, C. T. Stock¹³, W. F. Denino¹¹, T. C. Nguyen⁶
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- 4:30 PM **Recruiting the Best and Brightest Into Cardiothoracic Surgery: Medical Student Summer Scholars Program Revisited**
R. S. Higgins¹, A. Kilic², V. C. Daniel¹, R. E. Merritt², S. D. Moffatt-Bruce¹, J. A. Crestanello², B. A. Whitson², C. Ferguson¹, T. Williams¹, P. Ross²
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4:45 PM Training Surgical Assistants Can Improve the Process of Adoption of Video-Assisted Thoracic Surgery (VATS) Lobectomy

S. L. Meyerson¹, S. Balderson², T. D'Amico²
¹Northwestern University, Chicago, IL, ²Duke University Medical Center, Chapel Hill, NC

5:00 PM Basic Cardiac Surgery Skills on Sale for \$22.50
M. Kunkala, P. G. Rowse, R. Ruparel, Z. Li, D. Farley, L. D. Joyce, J. M. Stulak
Mayo Clinic, Rochester, MN

5:15 PM The Impact of Thoracic Residents on Surgical Outcomes and Failure to Rescue Patients Having Noncardiac Thoracic Operations
V. A. Ferraris¹, J. T. Martin², A. Mahan², S. P. Saha²
¹University of Kentucky Chandler Medical Center, Lexington, ²University of Kentucky, Lexington

3:30 PM – 5:30 PM

Congenital Session: Pediatric Congenital III

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

3:30 PM To Be Announced

3:45 PM Does Forward Flow Through the Pulmonary Valve After Bidirectional Cavopulmonary Shunt Benefit Patients at Fontan Operation?

K. Sugimoto¹, J. Mathew², Y. D'Udekem³, R. Weintraub¹, C. P. Brizard³, I. Konstantinov¹
¹Royal Children's Hospital, Melbourne, Australia, ²The Hospital for Sick Children, Toronto, Canada, ³Royal Children's Hospital, Parkville, Australia

4:00 PM Cardiopulmonary Bypass Prime Volume Impacts Perioperative Adverse Outcomes in Pediatric Cardiac Surgery
A. Muralidaran¹, M. Zubair², A. Hohimer², M. Lasarev², J. You², S. M. Langley²
¹Doernbecher Children's Hospital at Oregon Health & Science University, Portland, ²Oregon Health & Science University, Portland

4:15 PM Influence of Morphology and Initial Surgical Strategy on Survival of Infants With Tricuspid Atresia in the Current Era

B. Alsoufi, T. Slesnick, B. Schlosser, M. Mori, B. E. Kogon, R. Sachdeva, K. R. Kanter
Emory University, Atlanta, GA

4:30 PM Perioperative Vasopressin Results in Reduced Length of Hospital Stay After the Fontan Operation

T. S. Kumar¹, C. J. Knott-Craig²
¹Rama Krishna Nursing Home, Trichy, India, ²Le Bonheur Children's Hospital, Memphis, TN

4:45 PM Anomalous Aortic Origin of the Coronary Arteries With Intramural Course: Mid-Term Results Using Patch Angioplasty

N. Carvalho Guerra¹, G. Nesseris², S. Ramanan³, X. G. Roques⁴, F. Roubertie⁵
¹Hospital de Santa Maria, Lisbon, Portugal, ²University of Padova, Italy, ³Medical College of Calicut, India, ⁴Bordeaux Heart University Hospital, Pessac, France, ⁵CHU Bordeaux, France

5:00 PM Changes in Risk Profile Over Time in the Population of a Pediatric Heart Transplant Program

O. Reinhartz¹, K. Maeda², B. A. Reitz², S. Hollander¹
¹Stanford University, CA, ²Stanford University School of Medicine, CA

5:15 PM Outcomes With Early Biventricular Assist Device in Pediatric Heart Failure: A Single Center Experience of 31 Patients

J. Miller¹, M. Henn¹, D. Epstein², T. Guthrie², R. Schuessler³, K. Simpson², C. Canter², P. Eghtesady², U. S. Boston²
¹Barnes-Jewish Hospital/Washington University in St Louis, MO, ²St Louis Children's Hospital, MO, ³Washington University School of Medicine, St Louis, MO

3:30 PM – 5:30 PM

General Thoracic Session: Mediastinal/Pulmonary

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

3:30 PM Surgical Outcomes of En Bloc Resection Requiring Vertebrectomy for Malignancy Invading the Thoracic Spine

G. Mody, C. Bravo Iñiguez, K. Armstrong, M. Martinez, M. Ferrone, C. Bono, J. Chi, J. Wee, A. Lebenthal, S. J. Swanson, Y. Colson, R. Bueno, M. T. Jaklitsch
Brigham and Women's Hospital, Boston, MA

*Invited

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



- 3:45 PM **PET-Negative Mediastinum Does Not Assure Freedom From N1 and N2 Lymph Nodes in Clinical Stage 1A and 1B Lung Cancer**
H. J. Soukiasian, D. Liou, H. Merry, R. McKenna
Cedars-Sinai Medical Center, Los Angeles, CA
- 4:00 PM **Pneumonectomy for Locally Advanced Non-Small Cell Lung Cancer (NSCLC): The Impact of Neoadjuvant Therapy**
S. R. Broderick¹, A. Patel², T. P. Crabtree³, J. Bell², D. Kreisel², A. S. Krupnick³, G. A. Patterson², B. F. Meyers², V. Pur²
¹St Luke's Hospital, Chesterfield, MO, ²Washington University School of Medicine, St Louis, MO, ³Barnes-Jewish Hospital/Washington University in St Louis, MO
- 4:15 PM **Idiopathic Subglottic Stenosis: Factors Affecting Outcome Following Single-Stage Repair**
H. Wang, C. D. Wright, J. C. Wain, H. C. Ott, D. J. Mathisen
Massachusetts General Hospital, Boston
- 4:30 PM **Surgical Techniques and Long-Term Results of Pulmonary Artery Reconstruction in Patients With Non-Small Cell Lung Cancer**
D. Galetta, A. Borri, R. Gasparri, F. Petrella, L. Spaggiari
European Institute of Oncology, Milan, Italy
- 4:45 PM **Incidence and Factors Associated With Hospital Readmission Following Pulmonary Lobectomy**
B. M. Stiles, A. Poon, G. Giambrone, L. Gaber-Baylis, J. Eskreis-Winkler, X. Sun, A. Roberts-Selzer, P. C. Lee, J. Port, S. Paul, N. K. Altorki, P. Fleischut
New York Presbyterian Hospital - Weill Cornell Medical College, NY

- 5:00 PM **What's New in the Management of Mediastinal Germ Cell Tumors**
Kenneth A. Kesler, Indianapolis, IN
- 5:15 PM **The Importance of Participation in the International Thymic Malignancy Interest Group**
Frank C. Detterbeck, New Haven, CT

3:30 PM – 5:30 PM

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

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

Learning Objectives

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

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

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

- 3:30 PM **Introduction**
- 3:32 PM **Surgical Management of Malignant Mesothelioma: European Perspective**
Isabelle Opitz, Zurich, Switzerland
- 3:42 PM **Surgical Management of Malignant Mesothelioma: North American Perspective**
Marc De Perrot, Toronto, Canada
- 3:52 PM **Panel Discussion**
- 4:00 PM **Challenges in CT Screening for Lung Cancer: European Perspective**
Gaetano Rocco, Naples, Campania, Italy
- 4:10 PM **Challenges in CT Screening for Lung Cancer: North American Perspective**
Douglas E. Wood, Seattle, WA
- 4:20 PM **Panel Discussion**
- 4:30 PM **Challenges in Credentialing Surgeons in New Technologies or Procedures: European Perspective**
Gilbert Massard, Strasbourg, France

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

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

3:30 PM – 5:30 PM

SVS @ STS

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

Learning Objectives

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

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

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

3:30 PM	Long-Term Survival and Quality of Life After Extent II Thoracoabdominal Repair in Marfan Syndrome <i>R. Ghanta¹, M. Price¹, C. Nalty², O. A. Preventza², K. de la Cruz¹, S. A. LeMaire², J. S. Coselli²</i> <i>¹Baylor College of Medicine/Texas Heart Institute, Houston, ²Baylor College of Medicine, Houston, TX</i>
3:45 PM	Nationwide Outcomes Following Open Descending Thoracic Aortic Repair: An Analysis of Over 5,000 Medicare Patients J. Schaffer¹ , <i>B. Lingala¹, M. Dake¹, Y. J. Woo², R. Mitchell², D. Miller³</i> <i>¹Stanford Hospital and Clinics, Palo Alto, CA, ²Stanford University School of Medicine, CA, ³Stanford University Medical Center, CA</i>

*Invited

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

4:00 PM	Vascular Access for TEVAR/TAVR: Thinking Out of the Box <i>Keith B. Allen, Kansas City, MO</i>
4:15 PM	Results and Experience With Open vs Endoconduits for Femoral Approaches <i>Ravi Veeraswamy, Atlanta, GA</i>
4:30 PM	Management of Descending Aorta With Type A Dissection <i>Eric E. Roselli, Cleveland, OH</i>
4:45 PM	Lessons Learned With TEVAR in the Ascending Aorta <i>Rodney A. White, Torrance, CA</i>
5:00 PM	Traumatic Aortic Disruption: Prioritizing Repair <i>Anthony L. Estrera, Houston, TX</i>
5:15 PM	Controversies Surrounding Traumatic TEVAR <i>Mark A. Farber, Chapel Hill, NC</i>

3:30 PM – 5:30 PM

NEW! Role of SBRT in Lung Cancer Treatment

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

Learning Objectives

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

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

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

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

Wednesday, January 28, 2015

6:30 AM – 9:30 AM

Registration: STS University

7:00 AM – 9:00 AM and repeated 9:30 AM – 11:30 AM 

STS University

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

Course 1: TAVR/TEVAR, Guidewires, and Sheaths

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

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

Learning Objectives

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

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

Course 2: Mitral Valve Repair

Course Directors: *Gorav Ailawadi, Charlottesville, VA, and Harold G. Roberts Jr,ventura, FL*

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

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



Participants will practice advanced mitral valve repair guided by international leaders in advanced open and minimally invasive/robotic repair. The objective is to guide participants in performing mitral valve surgery for a broad range of pathologies, as well as the complete approaches to the mitral valve.

Learning Objectives

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

- Describe approaches to ischemic MR, including performing a complete chordal sparing mitral valve replacement
- Explain technical options for repair in posterior, anterior, and bileaflet pathologies
- Develop an understanding of less invasive options for mitral valve disease, including robotic surgery and percutaneous mitral repair (MitraClip)

Course 3: Valve-Sparing Aortic Root Replacement

Course Directors: *Duke E. Cameron, Baltimore, MD, and Edward Chen, Atlanta, GA*

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

Learning Objectives

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

- Describe the anatomy of the aortic root
- Summarize the technical steps necessary for successful performance of a VSRR
- Apply different methods in choosing a graft size
- Discuss leaflet repair and annuloplasty methods

 Indicates that a ticket is required to attend.

Wednesday, January 28, 2015

Course 4: Aortic Root Enlarging Procedures

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

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

Learning Objectives

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

- Identify the anatomy and appropriate surgical landmarks in the left ventricular outflow tract and aortic valve apparatus
- Describe the incision sites and overall surgical techniques for a variety of root enlargement strategies
- Discuss surgical pitfalls associated with each strategy and mechanisms by which to delineate options based upon patient and anatomic substrate

Course 5: ICU/ECHO

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

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

Learning Objectives

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

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

Course 6: Long-Term Circulatory/Respiratory Support

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

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

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

Learning Objectives

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

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



Wednesday, January 28, 2015

Course 7: Advanced Endotracheobronchial Procedures

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

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

Learning Objectives

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

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

Course 8: VATS Lobectomy

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

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

Learning Objectives

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

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

Course 9: Advanced Esophageal and Tracheal Procedures

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

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

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

Learning Objectives

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

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

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

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

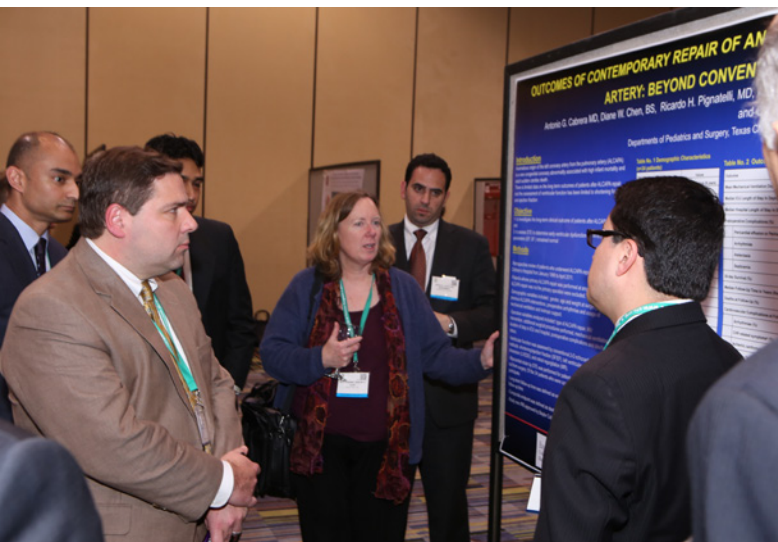
Learn how to perform this essential part of a double switch. Patients who undergo atrial switch procedures and survive to adulthood may present with complications from their repair. It is essential for today's surgeon to be facile with yesterday's techniques. In this course, you will learn the complexities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

Learning Objectives

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

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

Scientific Posters



Adult Cardiac

Impact of Energy Source on Rhythm Restoration by Left Atrial Size and Duration of Atrial Fibrillation Following the Cox-Maze Procedure: Propensity-Score Matched Analysis

H. Je, S. Holmes, G. Pritchard, N. Ad

Inova Heart and Vascular Institute, Falls Church, VA

Determinants of Operative Mortality in Patients With Acute Ruptured Type A Aortic Dissection

R. Affifi¹, H. Sandhu², S. Leake¹, A. Azzizadeh¹, K. Charlton-Ouw¹, C. Miller¹, T. C. Nguyen³, A. L. Estrera¹, H. J. Safi¹

¹University of Texas Health Science Center, Houston, ²The University of Texas Medical School, Houston, ³University of Texas Houston - Memorial Hermann

Transcatheter Aortic Valve Replacement Results in Significant Improvement of Pulmonary Function Testing Postoperatively in Patients With Severe Aortic Stenosis

R. Gilmore¹, V. Babaliaros¹, J. Binongo¹, S. A. Iturra¹, E. L. Sarin¹, C. Devireddy¹, B. G. Leshnowar¹, K. Mavromatis¹, R. A. Guyton², A. Simone¹, P. Keegan¹, A. Rahman¹, V. H. Thourani¹

¹Emory University, Atlanta, GA, ²The Emory Clinic, Inc, Atlanta, GA

Routine Genetic Testing for Thoracic Aortic Aneurysm in a Clinical Setting

B. Ziganshin, A. Bailey, C. Coons, D. Dykas, L. Tanriverdi, L. Liu, M. Tranquilli, P. Tsiouras, A. Bale, J. Elefteriades

Yale University School of Medicine, New Haven, CT

Endovascular Repair for Thoracic Aortic Pseudoaneurysms: Single Center Experience in 98 Patients

W. Ma¹, Y. Xue², W. Zhang², L. Sun², L. Huang²

¹Yale University School of Medicine, New Haven, CT, ²Beijing Anzhen Hospital of Capital Medical University and Beijing Institute of Heart, Lung and Blood Vessel Diseases, China

Characterization of Intraoperative Electroencephalography During Aortic Hemiarch Replacement With Moderate Hypothermic Circulatory Arrest

J. Keenan, H. Wang, A. Ganapathi, B. Englum, M. Schechter, A. Husain, G. Hughes

Duke University Medical Center, Durham, NC

Outcomes of Isolated Aortic Valve Replacement in the Pre- and Post-Transcatheter Aortic Valve Implantation Era

E. Martin, F. Dagenais, D. Kalavrouziotis, E. Dumont, P. Voisine, D. Doyle, S. Mohammadi

Quebec Heart & Lung Institute, Quebec City, Canada

Gene Expression Is Uniquely Correlated in Patients With Atrial Fibrillation and Neurocognitive Decline After Cardiopulmonary Bypass

A. Sabe¹, R. Dalal², N. Y. Elmadhun², B. Ramlawi³, F. W. Sellke⁴

¹Rhode Island Hospital, Providence, ²Brown Medical School/Rhode Island Hospital, Providence, ³Houston Methodist Hospital, TX

Does Preexisting Mitral Valve Insufficiency Impact the Early Outcome and Long-Term Results in Patients Undergoing TAVI?

H. Baumbach, K. Wachter, S. Ahad, T. Schaeufele, U. Franke

Robert Bosch Hospital, Stuttgart, Germany

Aortic No-Touch Off-Pump Coronary Artery Bypass Grafting With Full Skeletonized In Situ Arterial Grafts in SYNTAX Era

K. Tachibana¹, T. Higami², Y. Miyaki², T. Hagiwara¹, A. Yamashita¹

¹Sapporo Medical University School of Medicine, Japan, ²Sapporo Medical University, Japan

Are Continuous-Flow Left Ventricular Assist Devices (CF-LVAD) on Track to Compete With Heart Transplantation? A Propensity-Score Matched Analysis of CF-LVAD vs Heart Transplant for Patients in United Network for Organ Sharing Status II (UNOS-II)

S. Mastrobuoni¹, A. Poncelet¹, A. Dell' Aquila², L. Jacquet¹, J. Garcia³

¹St Luc's Hospital, Universite Catholique du Louvain, Brussels, Belgium, ²University Hospital Muenster, Germany, ³Massachusetts General Hospital, Harvard University, Boston

The SYNTAX Score: Does It Explain the Gender Difference in Mortality Following Coronary Artery Bypass Surgery?

K. Kotidis, D. Marinceu, M. Loubani

Castle Hill Hospital, Cottingham, United Kingdom

Conversion After Off- or On-Pump Coronary Artery Bypass Grafting: Insights From a Large Multinational Randomized Trial

L. Stevens¹, N. Noiseux¹, Y. Ou³, A. Lamy⁴

¹Centre Hospitalier Universitaire de Montréal, Canada, ²Population Health Research Institute/McMaster University/Hamilton Health Sciences, Canada, ³Population Health Research Institute (PHRI), Hamilton, Canada

SYNTAX Score Affects Long-Term Outcomes of Conventional Coronary Artery Bypass Grafting for Complex Coronary Artery Disease

Y. Cho, S. Shimura, A. Aki, H. Furuya, K. Okada, T. Ueda

Tokai University School of Medicine, Kanagawa, Japan

Scientific Posters

Blood Transfusion Modifies the Impact of Preoperative Hematocrit on Perioperative Outcomes Following Non-Emergent Coronary Artery Bypass Surgery

N. Ad, N. Burton, D. Spiegelstein, G. Pritchard, L. Halpin, S. Holmes
Inova Heart and Vascular Institute, Falls Church, VA

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

J. Idrees¹, N. Schiltz², D. R. Johnston¹, S. L. Mick¹, N. G. Smedira¹,
J. F. Sabik¹, E. Blackstone¹, E. G. Soltesz¹

¹Cleveland Clinic Foundation, OH, ²Case Western Reserve University, Cleveland, OH

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

F. Onorati¹, G. Faggian², A. D'Onofrio³, G. Gerosa³

¹Cardiac Surgery University of Verona Medical School, Verona, Italy,
²University of Verona Medical School, Verona, Italy, ³University of Padova, Italy

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

T. Oda, K. Minatoya, H. Sasaki, H. Tanaka, Y. Seike, T. Itonaga, Y. Inoue,
N. Kawamoto, J. Kobayashi
National Cerebral and Cardiovascular Center Japan, Osaka

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

A. Repossini², M. Tespili¹, L. Di Bacco², A. Saino¹, F. Nicol², G. Bisleri²,
C. Muneretto²

¹Azienda Ospedaliera Bolognini, Seriate, Italy, ²University of Brescia Medical School, Italy

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

M. F. Gaudino, M. Nesta, F. Burzotta, C. Trani, V. Coluccia, P. Bruno,
F. Crea, M. Massetti
Catholic University Rome, Italy

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

P. Yu¹, H. A. Cassiere¹, S. Dellis¹, F. Manetta², A. R. Hartman¹

¹North Shore University Hospital, Manhasset, NY, ²Long Island Jewish Medical Center, New Hyde Park, NY

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

A. Greenbaum¹, R. Lederman², M. Guerrero¹, R. Cooper¹, W. O'Neill¹,
G. Paone¹

¹Henry Ford Hospital, Detroit, MI, ²National Heart, Lung, and Blood Institute, Bethesda, MD

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

M. Stelzmüller, S. Sandner, B. Mora, G. Laufer, W. Wisser
Medical University Vienna, Austria

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

S. Hosoba, J. Binongo, Q. Li, M. Mori, O. Lattouf
Emory University School of Medicine, Atlanta, GA

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

A. K. Haeussler¹, O. Dzembali², A. Zientara², K. Graves², H. Loeblein²,
D. Odavic², M. Genoni²

¹University Heart Center Zurich, Switzerland, ²Triemli Hospital, Zurich, Switzerland

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

S. Deininger¹, M. Hoenicka², K. Müller-Eising¹, P. Rupp¹, W. Koenig²,
A. Liebold², H. Gorki¹

¹University of Ulm, Germany, ²University of Ulm Medical Center, Germany

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

T. S. Vlahu³, L. H. Patzelt¹, T. A. Timek¹, E. T. Murphy¹, R. L. Hooker²,
J. C. Heiser¹, C. L. Willekes¹

¹West Michigan Cardiothoracic Surgeons PLC, Grand Rapids, ²Spectrum Health, Grand Rapids, MI, ³Grand Rapids Medical Education Partners, MI

An Economic Analysis of Distant Referral Surgery for Mitral Valve Disease

M. Paulsen¹, F. L. Fazzalari², J. Li³, G. Wang³, D. S. Likosky¹, M. Krajacic¹,
W. Hopp³, S. F. Bolling⁴

¹University of Michigan Medical School, Ann Arbor, ²University of Michigan Medical School, Rochester, ³University of Michigan Ross School of Business, Ann Arbor, ⁴University of Michigan Hospital, Ann Arbor

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

B. B. Keeling¹, E. L. Sarin¹, B. G. Leshnowar², E. P. Chen¹, O. M. Lattouf³,
V. H. Thourani¹, R. A. Guyton⁴, M. E. Halkos¹

¹Emory University, Atlanta, GA, ²Emory University School of Medicine, Atlanta, GA, ³Emory Crawford Long Hospital, Atlanta, GA, ⁴The Emory Clinic, Inc, Atlanta, GA

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

S. Altarabsheh¹, S. Deo², A. Markowitz², S. Park²

¹Queen Alia Heart Institute, Amman, Jordan, ²Case Western Reserve University, Cleveland, OH

Scientific Posters

Evaluation of Graft Patency in Off-Pump vs On-Pump CABG: The PATENCY-CORONARY Trial

N. Noiseux¹, L. Stevens¹, C. Chartrand-Lefebvre¹, I. Prieto¹, F. Basile¹, S. Mansour¹, T. M. Kieser², A. Lamy³

¹Centre Hospitalier Universitaire de Montréal, Canada, ²University of Calgary, Canada, ³Population Health Research Institute (PHRI), Hamilton, Canada

Is There Any Benefit to Using the Radial Artery as an Additional Arterial Conduit During Bilateral In Situ Internal Thoracic Artery Grafting? A Propensity Score-Matched Study

S. Mohammadi, A. Paramythiotis, M. Marzouk, F. Dagenais, P. Voisine, E. Dumont, E. Charbonneau, D. Kalavrouziotis

Quebec Heart & Lung Institute, Laval University, Quebec City, Canada

Maximizing the Efficacy of Mitral Valve Repair Surgery in a Completely Video-Guided, Minimally Invasive Fashion: Rings and Neochordae in the "Respect Rather Than Resect" Era

T. Hinna Danesi¹, G. Cresce¹, B. Impiombato¹, E. Cavarretta¹, H. R. Gonzales Sanchez², L. Salvador¹

¹San Bortolo Hospital, Vicenza, Italy, ²Jose Casimiro Ulloa Hospital, Lima, Peru

Should Bicuspid Aortic Valve Resuspension Be Prohibited in Acute Type A Aortic Dissection Patients?

B. Rylski¹, F. Beyersdorf¹, N. Desai¹, F. A. Kari¹, M. Siepe², W. Y. Szeto², R. Milewski², J. E. Bavaria²

¹Heart Center Freiburg University, Germany, ²University of Pennsylvania, Philadelphia

Outcomes of Reoperative Aortic Arch Repair in Patients With Chronic DeBakey Type I Dissection

J. S. Coselli¹, O. A. Preventza¹, K. de la Cruz², M. Price², C. Nalty¹, S. Green², S. A. LeMaire¹

¹Baylor College of Medicine, Houston, TX, ²Baylor College of Medicine/Texas Heart Institute, Houston

Development of a Risk Prediction Model for Aortic Surgery Using the National Institute for Cardiovascular Outcomes Research (NICOR) Database

M. Bashir¹, M. Shaw¹, G. Hickey², S. Grant³, M. Fok¹, D. Harrington¹, M. Kuduvalli¹, M. Field¹, A. Oo¹

¹Liverpool Heart and Chest Hospital, United Kingdom, ²Northwest Institute of BioHealth Informatics, NICOR, Liverpool, United Kingdom, ³University Hospital of South Manchester, United Kingdom

Transaortic Approach: Impact on Clinical Outcomes for Patients Receiving Transcatheter Aortic Valve Replacement (TAVR)

M. Groh¹, W. Abernathy², J. Leitner³, G. L. Champsaur⁴

¹Mission Heart, Asheville, NC, ²Cardiology Associates, Asheville, NC, ³Cardiology Associates/Mission Health, Asheville, NC, ⁴Mission Hospitals, Asheville, NC

Off-Pump Bilateral Internal Thoracic Artery Grafting

K. K. Saha¹, M. Deva², A. Kumar¹, R. Kaushal³, K. Saha¹, R. Jacob¹, R. Adsul¹, L. Jagdale²

¹Private practice, Mumbai, India, ²Fortis S. L. Raheja Hospital, Mumbai, India, ³Gandhi Medical College, Bhopal, India



Late Outcomes of Long Left-Sided Coronary Artery Endarterectomy for Diffuse in Operable Coronary Artery Disease

A. M. El-Gamel

Waikato Hospital, Auckland University, Hamilton, New Zealand

Aortic Valve Replacement in the Moderately Elevated Risk Patient: A Population-Based Analysis of Outcomes

H. J. Patel¹, D. S. Likosky¹, P. F. Theurer², R. Prager²

¹University of Michigan Medical Center, Ann Arbor, ²University of Michigan Hospital, Ann Arbor

Early and Long-Term Results of Mitral Valve Surgery Are Not Altered by Concomitant Tricuspid Ring Valvuloplasty

M. Groh¹, I. Diaz², A. Johnson³, O. Binns¹, S. Ely³, G. L. Champsaur⁴

¹Mission Heart, Asheville, NC, ²The Johns Hopkins University, Baltimore, MD, ³Asheville Heart, NC, ⁴Mission Hospitals, Asheville, NC

Basic Science

Constructive Myocardial Remodeling of a Tissue-Engineered Extracellular Matrix Cardiac Patch Confirmed by Cardiac Magnetic Resonance Imaging

A. Tanaka, K. Kawaji, A. Patel, T. Ota

The University of Chicago, IL

An Innovative Needleless Liquid Jet Injection Delivery Method Featuring S100A1 Gene Therapy Demonstrates Cardiac Specific Expression and Preserves Left Ventricular Function in Ischemic Cardiomyopathy

A. Fagnoli¹, M. Katz¹, R. Williams¹, N. Steuerwald¹, C. R. Bridges²

¹Carolinas Healthcare System, Charlotte, NC, ²Sanger Heart and Vascular Institute, Charlotte, NC

Evaluation of Spinal Cord Protective Threshold of Serum Memantine, an NMDA Receptor Antagonist, in a Rabbit Model of Paraplegia

N. Panthee, M. Ono, T. Yamamoto, M. Ikemura, T. Tanaka, Y. Itoda, H. Suzuki

The University of Tokyo, Japan

Scientific Posters

Adult Bone Marrow-Derived Stem Cell Therapy Preserves the Ischemic Cardiomyocytic Mitochondrial Membrane Potential During Reperfusion

M. Yasin

The London Chest Hospital, United Kingdom

Miniplegia vs Blood Cardioplegia With Buckberg Solution in Elective Aortic Valve Replacement: A Prospective, Randomized, Non-Inferiority Controlled Trial

E. Bernabeu¹, A. Garcia-Valentin², J. Meseguer¹, A. Hurler¹, P. Llamas¹

¹Hospital General Universitario Alicante, Spain, ²Hospital Clinico, Valencia, Spain

Effect of Hydrogel in Cell-based Therapy in a Porcine Model of Chronic Myocardial Ischemia

Y. Zhou¹, S. Wang¹, Z. Yu¹, M. Karakas², T. Hunt¹, A. Chan², B. Kindzelski³, R. Abraham², K. A. Horvath¹

¹National Heart, Lung, and Blood Institute, NIH, Bethesda, MD, ²The Johns Hopkins School of Medicine, Baltimore, MD, ³National Heart, Lung, and Blood Institute, NIH, Potomac, MD

Interleukin-6 Is Critical to Experimental Thoracic Aortic Aneurysm Formation

N. Pope¹, M. Salmon¹, W. Johnston¹, G. Lu¹, C. Lau¹, G. Upchurch¹, G. Ailawad²

¹University of Virginia, Charlottesville, ²University of Virginia Health System, Charlottesville

Cardiothoracic Surgical Education

Declining Cardiothoracic Surgeon Involvement in the Management of Aortic Dissections: Impact of Endovascular Technologies and Implications for Training

G. Wheatley¹, C. Muetterties², W. Moser², R. Menon³, N. Carroll², K. Marulanda², T. Guy¹, Y. Toyoda¹, L. R. Kaiser²

¹Temple University School of Medicine, Philadelphia, PA, ²Temple University, Philadelphia, PA, ³Hospital of the University of Pennsylvania, Philadelphia

Understanding Why Residents May Inaccurately Log Their Role in Operations: A Look at the 2013 In-Training Exam Survey

A. Flagg¹, M. P. Robich¹, D. LaPar^{1,3}, D. D. Odell², W. Stein³, M. Aftab¹, K. Berfield^{1,0}, A. L. Eilers¹¹, S. S. Groth², J. F. Lazar⁴, A. A. Shah⁵, D. Smith⁶, E. H. Stephens⁷, C. T. Stock⁸, W. F. Denino¹², V. Tchanchalashvili⁹, E. G. Soltesz¹

¹Cleveland Clinic, OH, ²University of Pittsburgh Medical Center, PA, ³Emory University, Atlanta, GA, ⁴Pinnacle Health, Harrisburg, PA, ⁵Duke University Medical Center, Durham, NC, ⁶Bluhm Cardiovascular Institute of Northwestern University, Chicago, IL, ⁷Columbia University, New York, NY, ⁸Massachusetts General Hospital, Boston, ⁹University of Rochester Medical Center, NY, ¹⁰University of Washington, Seattle, ¹¹University of Texas Health Science Center at San Antonio, ¹²Medical University of South Carolina, Charleston, ¹³University of Virginia, Charlottesville

Congenital

The Mid-Term Outcomes of Bioprosthetic Pulmonary Valve Replacement in Children

T. Shinkawa, C. Chipman, T. Bozzay, X. Tang, J. Gossett, M. Imamura
Arkansas Children's Hospital, Little Rock

Perioperative Blood Management Program in Infants Undergoing Open Heart Surgery

S. Gunaydin¹, Y. Yalcinbas², T. Sarioglu²

¹Kirikkale University School of Medicine, Ankara, Turkey, ²Acibadem Bakirkoy Hospital, Istanbul, Turkey

Current Outcomes and Risk Factors for the Norwood Operation in Patients With Hypoplastic Left Heart Syndrome

B. Alsoufi, T. Slesnick, M. Mori, B. E. Kogon, R. Sachdeva, N. Chanani, D. Kim, K. R. Kanter

Emory University, Atlanta, GA

Impacts of Aortic Valve Morphology and Annular Size of Aortic Valve on Left Ventricular Outflow Tract Obstruction After Primary Repair of Coarctation of the Aorta or Interruption of the Aortic Arch With Ventricular Septal Defect

J. Sugiura¹, T. Nakano², H. Kado²

¹Chukyo Hospital, Nagoya, Japan, ²Fukuoka Children's Hospital, Japan

Norwood Stage I Palliation in Patients Less Than 2.5 kg: Outcomes and Risk Analysis

D. Kalfa, G. Krishnamurthy, S. Levasseur, M. Najjar, P. Chai, J. Chen, J. Quaegebeur, E. A. Bacha

Morgan Stanley Children's Hospital/New York Presbyterian - Columbia University, New York, NY

Long-Term Durability of Mitral Valve Repair Performed Before the Age of Five

M. Ando

Sakakibara Heart Institute, Tokyo, Japan

Surgical Strategy for Pulmonary Atresia, Ventricular Septal Defect, and Major Aortopulmonary Collateral Arteries (PA/VSD/MAPCA) With Absent or Hypoplastic Central Pulmonary Artery

T. Miyazaki, M. Yamagishi, Y. Maeda

Kyoto Prefectural University of Medicine, Japan

Complications and Risk Assessment of 21 Years in Pediatric Pacing

B. Wilhelm¹, M. Thöne², B. Osswald²

¹Easton Hospital, Affiliate, Drexel University College of Medicine, PA,

²Heinrich Heine University Hospital Düsseldorf, Germany

Fast-Track Staged Approach Is Beneficial for Systemic Oxygen Saturation After Fontan Completion

Y. Naito¹, T. Yoshii¹, N. Oka¹, T. Miyamoto², S. Torii¹, T. Kitamura¹, T. Horai¹, K. Itatani¹, Y. Tanaka², K. Miyaji¹

¹Kitasato University School of Medicine, Sagami-hara, Japan, ²Gunma Children's Medical Center, Shibukawa, Japan

Effect of Intercurrent Operation and Systemic Hemodynamics on Developmental Trajectory in Infants and Children With Congenital Heart Disease

G. Hoffman, C. Brosig, L. Bear, J. S. Tweddell, K. A. Mussatto

Children's Hospital of Wisconsin, Milwaukee

Scientific Posters

Blalock-Taussig Shunt in Neonates With Functionally Univentricular Heart

T. Sasaki, T. Asou, Y. Takeda, T. Tominaga, Y. Onakatomi
Kanagawa Children's Medical Center, Yokohama, Japan

Patient Selection Minimizes Recurrent Arch Obstruction in Patients Undergoing Aortic Coarctation Repair via Left Thoracotomy

F. Guzman-Pruneda¹, J. Trost¹, B. Smith¹, D. Parekh¹, I. Adachi¹, J. Heinle¹, E. D. McKenzie², C. Fraser¹, C. M. Mery²
¹Texas Children's Hospital, Houston, ²Texas Children's Hospital/Baylor College of Medicine, Houston

Does Prior Innominate Vein Occlusion Preclude Successful Bidirectional Superior Cavopulmonary Connection Creation?

M. Trezzi, S. M. Bradley, V. Bandisode, H. Baker, M. N. Kavarana
Medical University of South Carolina, Charleston

Augmentation of the Lesser Curvature With an Autologous Vascular Patch in Complex Aortic Coarctation and Interruption

H. Lee, J. Yang, T. Jun, Y. Cho, D. Jeong, I. Kang, J. Huh, J. Song
Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea

Transesophageal Echocardiogram-Guided Minimally Invasive Periventricular Device Closure of Perimembranous Ventricular Septal Defects

X. Pan, S. Li, K. Pang, W. Ouyang, S. Hu, Y. Liu, D. Zhang, F. Zhang
Fuwai Hospital, Peking Union Medical College, Chinese Academy of Medical Sciences, Beijing, China

High Prevalence of Hypertension and End-Organ Damage Late After Coarctation Repair in Patients With Normal Transverse Arches Detected Using Noninvasive Techniques

M. Lee¹, S. Allen⁴, R. Kawasaki³, A. Kotevski³, J. Koleff², I. Konstantinov², C. P. Brizard¹, Y. D'Udekem¹
¹Royal Children's Hospital, Parkville, Australia, ²Royal Children's Hospital, Melbourne, Australia, ³Murdoch Children's Research Institute, Melbourne, Australia, ⁴University of Melbourne, Australia

Updates on the 20-Year Outcome of Simultaneous Anterior Mitral Leaflet Retention Plasty and Septal Myectomy in Hypertrophic Obstructive Cardiomyopathy

E. B. Delmo Walter, H. Siniawski, R. Hetzer
German Heart Institute Berlin, Germany

Performance Assessment of the Temporary Viscous Impeller Pump in Total Cavopulmonary Connections With Various Offsets

A. Kerlo¹, S. Franke², M. D. Rodefeld¹
¹Indiana University School of Medicine, Indianapolis, ²Technion – Israel Institute of Technology, Haifa

Prolonged White Matter Inflammation After Cardiopulmonary Bypass in a Juvenile Porcine Model

N. Ishibashi, L. Korotcova, S. Kumar, K. Agematsu, P. Morton, R. Jonas
Children's National Medical Center, Washington, DC

Critical Care

Blood Pressure Management After Cardiac Surgery Is Associated With Glial Fibrillary Acidic Protein Release

D. Hori¹, M. Ono², A. Everett¹, H. Adachi³, T. Rappold¹, J. V. Conte¹, A. Shah¹, D. E. Cameron¹, C. Hogue¹
¹The Johns Hopkins Hospital, Baltimore, MD, ²Texas Heart Institute, Houston, ³Saitama Medical Center, Japan

Sequentially Updated Discharge Model for Optimizing Hospital Resource Use and Surgical Patients' Satisfaction

M. Tong, G. Pattakos, E. Blackstone, J. He, J. Rajeswaran, M. Kattan, W. Barsoum, D. R. Johnston
Cleveland Clinic, OH

A Prediction Model for Unplanned Cardiac Surgery Intensive Care Unit (CSICU) Readmissions

M. Kashiouris, G. J. Whitman, B. McGuinness, S. Russell, M. Orlando, M. S. Sussman
The Johns Hopkins Hospital, Baltimore, MD

General Thoracic

A Biomimetic Model of Lung Cancer Culture Based on Native Lung Scaffolds Allows for Ex Vivo Testing of Therapeutic Agents

L. F. Tapias¹, S. E. Gilpin², J. Elliott¹, X. Ren¹, L. Wei¹, B. Fuchs¹, H. C. Ott¹, M. Lanuti¹
¹Massachusetts General Hospital, Boston, ²Massachusetts General Hospital/Harvard Medical School, Boston

Why General Surgeons Perform Lobectomies in the United States

M. S. Kent¹, A. Jena², O. Ho², R. I. Whyte¹, S. P. Gangadharan², S. Paul³
¹Beth Israel Deaconess Medical Center, Boston, MA, ²Harvard Medical School, Boston, MA, ³New York Presbyterian Hospital, New York

What Is the Optimal Transplant for Elderly Patients With Idiopathic Pulmonary Fibrosis?

B. Gulack¹, A. M. Ganapathi², J. Meza², S. Hirji², L. Snyder², R. Davis², M. G. Hartwig²
¹Duke University, Durham, NC, ²Duke University Medical Center, Durham, NC

Gastroesophageal Reflux Aspiration in the Post-Lung Transplant Patient: A Targeted Bile Acid Metabolomic and Lipidomic Approach

S. Naroji, B. Aramini, C. Kim, R. Chan, B. Zhou, K. Raza, H. Robbins, L. Shah, D. Lederer, S. Arcasoy, J. R. Sonett, G. Di Paolo, S. Cremens, F. D'Ovidio
Columbia University Medical Center, New York, NY

Allogeneic Blood Transfusion After Lung Transplantation—Impact on Early Rejection, Function, and Late Survival Outcomes

L. Ong
Freeman Hospital, Institute of Transplantation, London, United Kingdom

Left Upper Lobectomy After Coronary Artery Bypass Grafting

B. Wei¹, R. J. Cerfolio², D. J. Minnich², P. L. Linsky³
¹University of Alabama Birmingham Medical Center, ²University of Alabama, Birmingham, ³University of Louisville, KY

Scientific Posters

Pathologic Upstaging in Patients Undergoing Resection for Stage I Non-Small Cell Lung Cancer (NSCLC): Are There Modifiable Predictors?

M. Bott¹, P. P. Samson², A. Patel³, T. P. Crabtree⁴, G. Colditz³, D. Kreisel⁴, A. S. Krupnick⁴, G. Patterson³, S. R. Broderick⁵, B. F. Meyers³, V. Puri³
¹Washington University in St Louis, MO, ²Washington University in St Louis School of Medicine, Webster Groves, MO, ³Washington University School of Medicine, St Louis, MO, ⁴Washington University School of Medicine Barnes Jewish Hospital, St Louis, MO, ⁵St Luke's Hospital, Chesterfield, MO

Risk Stratification of Resected Esophageal Adenocarcinoma: Analysis of Driver Mutations and Gene Amplifications

H. Zhou¹, L. F. Tapias², J. Elliott², D. J. Mathisen², M. Lanuti²
¹Guangdong General Hospital & Guangdong Lung Cancer Institute, Guangzhou, China, ²Massachusetts General Hospital, Boston

Clinical Outcomes of Reoperation for Failed Antireflux Surgery

C. Wilshire, B. Louie, D. E. Shultz, Z. Jutric, A. S. Farivar, R. W. Aye
Swedish Medical Center, Seattle, WA

Pre-Treatment Dysphagia in Esophageal Cancer May Eliminate the Need for Staging by Endoscopic Ultrasonography

R. Ripley, I. S. Sarkaria, R. Grosser, C. Sima, M. S. Bains, D. R. Jones, P. S. Adusumilli, J. Huang, D. J. Finley, V. W. Rusch, N. P. Rizk
Memorial Sloan Kettering Cancer Center, New York, NY

Nonanatomic Prognostic Factors in Surgically Resected T1-3N0 Esophageal Squamous Cell Carcinoma

J. Jeon, H. Yang, M. Kim, J. Lee
Center for Lung Cancer, National Cancer Center, Goyang, Republic of Korea

Impact of Positive Margins on Survival in Patients Undergoing Esophagectomy for Esophageal Cancer

J. Javidfar, P. Speicher, T. D'Amico, M. G. Hartwig, M. Berry
Duke University Medical Center, Durham, NC

Endoscopic Ultrasound Estimates for Tumor Depth at the Gastroesophageal Junction Are Less Accurate for Early Mid-Stage Patients: Implications for the Liberal Use of Endoscopic Resection

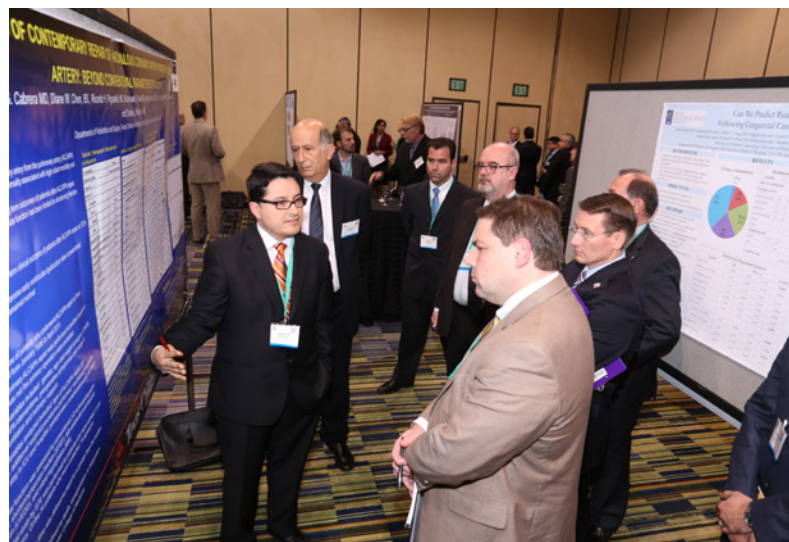
R. Dhupar, A. Correa, R. Rice, M. Bhutani, B. Weston, A. DaSilva, D. Maru, S. Betancourt, D. C. Rice, S. G. Swisher, W. L. Hofstetter
The University of Texas MD Anderson Cancer Center, Houston

Feasibility of Segmentectomy in Clinical-T1b Lung Cancer Patients With Radiological Solid Dominant Appearance on Thin-Section CT Scan

A. Hattori¹, K. Suzuki², T. Matsunaga¹, K. Imashimizu¹, T. Banno², K. Takamochi¹, S. Oh¹
¹Juntendo University, Tokyo, Japan, ²Juntendo School of Medicine, Tokyo, Japan

Thoracic Revised Cardiac Risk Index Is Associated With Prognosis After Resection for Stage I Lung Cancer

A. Brunelli¹, M. K. Ferguson², M. Salati³, W. T. Vigneswaran², M. Jimenez⁴, G. Varela⁴
¹St James's University Hospital, Leeds, United Kingdom, ²The University of Chicago, IL, ³Ospedali Riuniti Ancona, Italy, ⁴University Hospital Salamanca, Spain



Impact of Surveillance on Long-Term Outcomes for Early Stage Non-Small Cell Lung Cancer Following Surgical Resection

L. M. Backhus¹, F. Farjah¹, C. Liang², T. K. Varghese Jr², A. M. Cheng¹, D. Flum², D. Au², S. Zeliadt²
¹University of Washington Medical Center, Seattle, WA, ²University of Washington, Seattle, WA

Chest Wall Sarcomas: Impact of Adjuvant Radiation Therapy on Survival Following Surgical Resection in a Propensity Score-Matched Large Population Cohort

A. M. Al-Ayoubi¹, S. Rehman², A. J. Kaufman¹, A. S. Wolf¹, R. M. Flores¹, F. Bhora³
¹Mount Sinai Medical Center, New York, NY, ²St Luke's Roosevelt Hospital, New York, NY, ³Mount Sinai Roosevelt and Mount Sinai St Luke's Hospitals, New York, NY

The Safety of Thoracoscopic Surgery for Lung Cancer in Patients Taking Antiplatelet Agents Without Interruption

W. Yu
Severance Hospital, Seoul, Republic of Korea

Logistic Regression Decision Aid for In-hospital Mortality in 1,082 Flail Chest Patients

M. Zehr¹, N. Klar¹, R. A. Malthaner²
¹Western University, London, Canada, ²London Health Sciences Center, Canada

Perioperative Red Blood Cell Transfusion: Independent Risk Factor for Acute Respiratory Distress Syndrome After Pneumonectomy

B. Kidane², M. Plourde³, S. Chad³, K. Eckert¹, D. Fortin¹, E. Frechette¹, R. Inculet¹, R. A. Malthaner¹
¹London Health Sciences Center, Canada, ²University of Toronto, Canada, ³University of Western Ontario, London, Canada

Scientific Posters

Discharging Patients Home Using a Digital Chest Tube Drainage System

R. J. Cerfolio¹, B. We², D. J. Minnich²

¹University of Alabama, Birmingham, ²University of Alabama Birmingham Medical Center

Prognostic Score of Long-Term Survival After Extrapleural Pneumonectomy for Malignant Pleural Mesothelioma

G. Leuzzi¹, F. Rea⁴, L. Spaggiari³, G. Alessandrini¹, G. Marulli⁴, I. Sperduti¹, M. Casiraghi³, G. Pariscenti⁶, P. Bovolato⁶, M. Alloisio², M. V. Infante², V. Pagan⁷, P. Fontana⁷, A. Oliaro⁵, E. Ruffin⁵, G. Ratto⁸, G. Leoncini⁸, R. Sacco⁹, F. Mucilli⁹, F. Facciolo¹

¹Regina Elena National Cancer Institute - IFO, Rome, Italy, ²Humanitas Research Hospital, Rozzano, Italy, ³European Institute of Oncology, Milan, Italy, ⁴University of Padua, Italy, ⁵University of Turin, San Giovanni Battista Hospital, Italy, ⁶Community Hospital, Brescia, Italy, ⁷Ospedale di Mestre, Venezia-Mestre, Italy, ⁸IRCCS AOU "San Martino" IST, Genoa, Italy, ⁹Università-ASL, Chieti, Italy

Clinical Prediction of Pathologic Complete Response in Superior Sulcus Non-Small Cell Lung Cancer: Is There a Role for Selective Surgery?

M. B. Antonoff¹, W. L. Hofstetter², A. Correa², J. Bell³, S. G. Swisher², B. F. Meyers³

¹Washington University, Olivette, MO, ²University of Texas MD Anderson Cancer Center, Houston, ³Washington University School of Medicine, St Louis, MO

Pleurodesis for Prolonged Alveolar Air Leakage Could Set Off the Advantage of Preserved Lung Function Following Segmentectomy for Lung Cancer

T. Maeyashiki, K. Suzuki, K. Takamochi, S. Oh

Juntendo University School of Medicine, Tokyo, Japan

Survival After Lung Retransplantation in the Last Decade (2004–2013): Better or Worse?

M. Thomas, E. V. Belli, R. C. Agnew, K. P. Landolfo

Mayo Clinic, Jacksonville, FL

Single-Port Video-Assisted Thoracoscopic Lung Resection—A Multi-institutional Series of 208 Cases

P. Hsu¹, W. Lin², Y. Chang², C. Liu³

¹Taipei Veterans General Hospital, Taiwan, ²Wan Fang Hospital, Taipei Medical University, Taiwan, ³Sun Yat-Sen Cancer Center, Taipei, Taiwan

Ivor Lewis Esophagectomy With Extended Two-Field Lymphadenectomy for Esophageal Cancer: A Single Institution Experience of 1,342 Consecutive Patients

I. Miao, H. Chen, J. Xiang, Y. Zhang, B. Li

Fudan University Shanghai Cancer Center/Hospital, China

Improving Operating Room Resource Utilization Through Optimized Scheduling of Major Pulmonary Resections

A. Azzi¹, K. Shah², E. Sabri³, A. J. Seely⁴, P. J. Villeneuve, R. Sundaresan⁵, F. Shamji⁶, D. Maziak⁶, S. Gilbert⁷

¹The Ottawa Hospital, Canada, ²University of Ottawa, Canada, ³Centre for Practice-Changing Research, The Ottawa Hospital, Canada, ⁴Ottawa General Hospital, Canada

Prognostic Value of the Protocadherin 10 Promoter Methylation Status in Curatively Resected Pathological Stage I Non-Small Cell Lung Cancer

H. Harada¹, K. Miyamoto², Y. Yamashita¹, M. Kuwahara¹, K. Taniyama¹, M. Okada²

¹National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Hiroshima, Japan, ²Hiroshima University, Japan

Achalasia Subtype Determines Clinical Presentation and Response to Laparoscopic Heller Myotomy

A. Tschoner¹, C. Chan², M. Lada¹, M. Han¹, C. E. Jones¹, C. Peyre³, T. J. Watson⁴, J. Peters⁵

¹University of Rochester Medical Center, NY, ²Queen Elizabeth Hospital, Hong Kong, China, ³University of Rochester, NY, ⁴University of Rochester, School of Medicine & Dentistry, NY, ⁵University Hospitals Cleveland, OH

Quality Improvement

Predictors of Prolonged Length of Stay After Lobectomy: Can We Define the At-Risk Group?

A. Hodari, K. Park, Z. T. Hammoud, I. Rubinfeld

Henry Ford Health System, Detroit, MI

Cardiac Arrest After Open Heart Surgery: Improved Processes Save Lives

S. J. Ley³, V. A. Gaudiani¹, G. D. Egrie², R. E. Shaw³, J. Brewster³

¹Pacific Coast Cardiac & Vascular Surgeons, Redwood City, CA, ²Palo Alto Medical Foundation, San Francisco, CA, ³California Pacific Medical Center, San Francisco

Impact of a Multidisciplinary Rapid Assessment of Complex Pleural Effusion (RACE) Program on Efficiency of Patient Care

K. Czarnicka¹, M. Zubrinic¹, T. Waddell¹, A. Pierre¹, G. Darling¹,

M. De Perrot¹, M. Cypel¹, A. Garcia¹, T. Stuart-McEwan¹, M. Neary¹,

S. H. Keshavjee², K. Yasufuku²

¹University Health Network, Toronto, Canada, ²Toronto General Hospital, Canada

A Review of Medical Malpractice Claims Involving Cardiothoracic and Vascular Surgeons

M. S. Kent¹, S. Seabury², R. I. Whyte¹, S. P. Gangadharan³, J. Berman¹,

E. Hellend⁴, J. Beqari¹, A. Jena³

¹Beth Israel Deaconess Medical Center, Boston, MA, ²University of Southern California, Los Angeles, ³Harvard Medical School, Boston, MA, ⁴Claremont McKenna College, CA

Registration and Housing Instructions

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

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

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

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

REGISTRATION CATEGORIES

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

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

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

PENDING ACTIVE AND INTERNATIONAL MEMBERS:

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

STS ASSOCIATE MEMBER PHYSICIANS—NON-CT

SURGEONS: STS member physicians who work with cardiothoracic surgeons.

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

STS PRE-CANDIDATE AND CANDIDATE MEMBERS:

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

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

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

NON-MEMBER RESIDENTS, FELLOWS, AND MEDICAL

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

BECOME AN STS MEMBER!

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

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

Applications for Associate, Candidate, or Pre-Candidate Membership must be submitted by January 15, 2015, to allow time for processing.

Those approved for membership can attend the STS 51st Annual Meeting as members and immediately begin enjoying member benefits, such as discounted registration fees.


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

SEPARATE REGISTRATIONS

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

- STS/AATS Tech-Con 2015
- Ticketed Sessions

TICKETED SESSIONS AND STS UNIVERSITY

The courses in this program marked with  require tickets to attend. Please see the chart on [page 59](#) for pricing details.

CANCELLATION POLICY

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

ONSITE REGISTRATION INFORMATION

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

Friday, January 23, 2015	3:00 PM – 6:00 PM
Saturday, January 24, 2015	7:00 AM – 6:00 PM
Sunday, January 25, 2015	7:00 AM – 6:30 PM
Monday, January 26, 2015	6:30 AM – 5:00 PM
Tuesday, January 27, 2015	6:30 AM – 4:30 PM
Wednesday, January 28, 2015	6:30 AM – 9:30 AM

HOUSING INFORMATION

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

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

Pricing

	STS Members					Non-Members		
	Surgeon Members	Pending Active and International Members*	Associate Member Physicians (Non-CT Surgeons)	Associate Member Non-Physicians	Candidate and Pre-Candidate Members	Non-Member Physicians	Non-Member Non-Physicians	Non-Member Residents, Fellows, and Medical Students
STS 51st Annual Meeting								
Through December 1	\$250	\$650	\$250	\$100	\$0	\$825	\$275	\$100
After December 1	\$350	\$800	\$350	\$200	\$0	\$975	\$425	\$200
STS/AATS Tech-Con 2015								
Through December 1	\$400	\$625	\$400	\$400	\$0	\$625	\$625	\$0
After December 1	\$500	\$725	\$500	\$500	\$0	\$725	\$725	\$0
Ticketed Sessions (Must be registered for the STS Annual Meeting or Tech-Con to attend.)								
Practice Management Summit	\$75	\$75	\$75	\$75	\$0	\$75	\$75	\$75
STS/CHEST	\$300	\$400	\$300	\$200	\$75	\$400	\$300	\$200
STS/SCA	\$225	\$275	\$225	\$125	\$50	\$275	\$175	\$100
General Thoracic Surgical Symposium (with Tech-Con registration)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
General Thoracic Surgical Symposium (without Tech-Con registration)	\$75	\$75	\$75	\$75	\$0	\$75	\$75	\$75
Congenital Surgical Symposium (with Tech-Con registration)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Congenital Surgical Symposium (without Tech-Con registration)	\$75	\$75	\$75	\$75	\$0	\$75	\$75	\$75
Ticketed Sessions (Must be registered for the STS Annual Meeting to attend.)								
Acquired and Congenital Heart Surgery Symposium	\$200	\$250	\$200	\$100	\$50	\$250	\$150	\$75
STS/AATS Critical Care Symposium	\$225	\$275	\$225	\$125	\$50	\$275	\$175	\$100
Monday Night Social Event	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125
Early Riser Session (each)	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$40
Health Policy Forum	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$40
Ethics Debate	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$40
STS University Course (each)	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150
STS 51st Annual Meeting Online (Must be registered for the STS Annual Meeting to get the Pre-Meeting price.)								
Pre-Meeting (through January 22)	\$125	\$225	\$125	\$125	\$0	\$225	\$225	\$225
Meeting (January 23-28)	\$250	\$250	\$250	\$250	\$0	\$450	\$450	\$450
Post-Meeting (after January 28)	\$500	\$500	\$500	\$500	\$0	\$900	\$900	\$900
STS/AATS Tech-Con 2015 Online (Must be registered for Tech-Con to get the Pre-Meeting price.)								
Pre-Meeting (through January 22)	\$125	\$225	\$125	\$125	\$0	\$225	\$225	\$225
Meeting (January 23-28)	\$250	\$250	\$250	\$250	\$0	\$450	\$450	\$450
Post-Meeting (after January 28)	\$500	\$500	\$500	\$500	\$0	\$900	\$900	\$900

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

Downtown San Diego



Hotel

Downtown San Diego

	Distance (in miles) from SDCC
1 San Diego Marriott Marquis & Marina	0.05
2 Manchester Grand Hyatt San Diego	0.32
3 Omni San Diego Hotel	0.12

Travel Information

AIR TRAVEL

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

GROUND TRANSPORTATION FROM SAN

Car Rental

STS has negotiated special car rental rates from Hertz Rent a Car. Reservations may be placed at www.hertz.com or at (800) 654-2240 from within the United States and Canada; from international locations, call (405) 749-4434. To receive the special STS rate, reference convention number (CV#) 04XS0002 when making your car rental reservations.

Taxi Service

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

Shuttle Service / Private Car

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

TRANSPORTATION TO/FROM THE CONVENTION CENTER

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

INFORMATION FOR INTERNATIONAL ATTENDEES

Visa Information

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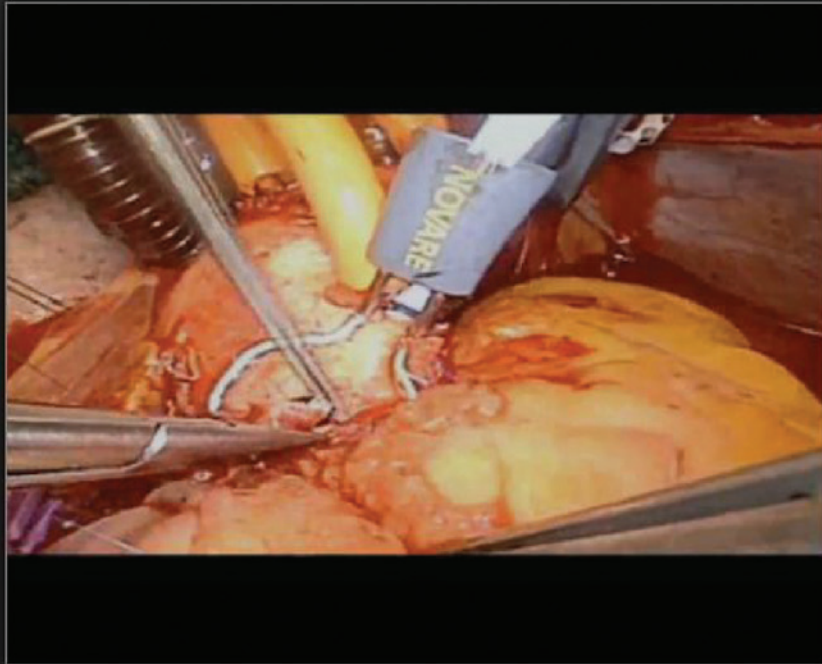
www.san.org (San Diego International Airport)

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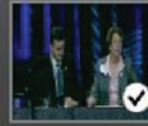
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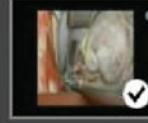
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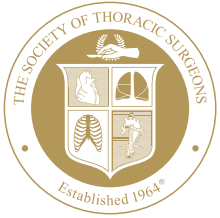
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