



The STS Meeting Bulletin

STS 51ST ANNUAL MEETING • JANUARY 24-28, 2015 • SAN DIEGO, CALIFORNIA

Tuesday/Wednesday Edition

Tuesday

6:30 a.m. – 4:30 p.m.

Registration: STS 51st Annual Meeting
Lobby D

7:30 a.m. – 8:30 a.m.

Early Riser Sessions

Location printed on ticket

Early Riser Health Policy Forum: The End of
Global Surgical Payments Under Medicare?
Room 26B

9:00 a.m. – 10:00 a.m.

Thomas B. Ferguson Lecture: Pedro J. del Nido
Ballroom 20

9:00 a.m. – 3:00 p.m.

Exhibits Open
Exhibit Hall

9:00 a.m. – 5:00 p.m.

Scientific Posters Open
Rooms 29-32 Foyer

10:45 a.m. – 11:00 a.m.

Award Presentations
Ballroom 20

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Mark Allen Elected STS President

Internationally recognized cardiothoracic surgeon Mark S. Allen, MD was elected by the membership yesterday evening as the Society's 2015-2016 President.

"I am so proud and honored to be leading a group of such distinguished cardiothoracic surgeons," said Dr. Allen, Professor of Surgery at the Mayo Clinic College of Medicine and a Consultant with the Division of General Thoracic Surgery at the Mayo Clinic. "STS is well respected among surgeons, government officials, and the public, and I look forward to making an impact on the future of our specialty."

Born in Pittsburgh, Dr. Allen received his undergraduate degree from Allegheny College in Meadville, Penn. He studied chemistry at The State University of New York Buffalo before attending medical school at Hahnemann University in Philadelphia, where he was a member

of the Alpha Omega Alpha Honor Medical Society.

Dr. Allen completed his internship and general surgery residency at Massachusetts General Hospital (MGH) in Boston before becoming chief resident for general surgery. He also completed his cardiothoracic surgery residency at MGH.

"As cardiothoracic surgeons, our commitment is to providing patients with the highest quality of care, which requires that we remain active in continuing our education and learning the newest techniques available," said Dr. Allen. "To keep STS at the forefront of medical education, I will spend my presidency working to promote and

improve learning initiatives for not only residents and fellows, but also practicing cardiothoracic surgeons."

During his term as President,

Dr. Allen plans to expand STS e-learning activities, continue developing the STS National Database and STS Research Center, and strengthen ties with the international cardiothoracic community. He also will oversee an update of the Society's strategic plan, an endeavor undertaken every 5 years.

"I think it is important that STS members feel they have a voice in their organization," Dr. Allen said. "They can be—and should be—involved in helping move the

Continued on page 4



MARK S. ALLEN, MD

Fullerton Ramps Up STS Commitment to Fight Noncommunicable Diseases

A new global health crisis is emerging in the developing world, and it is not Ebola. "In 2013, 35 million people died of noncommunicable diseases (NCDs), and 80% of those were in the developing world," said STS President David A. Fullerton, MD.

In particular, these NCDs include diseases of the chest, such as cardiovascular disease, lung disease, and cancer, especially lung cancer.

During his Presidential Address on Monday morning, Dr. Fullerton discussed how STS is launching a new initiative to reduce the incidence of these NCDs. "Effective this meeting, Dr. Joe Dearani assumes the leadership of a special Task Force to coordinate these efforts and bring them to fruition," he said.

"We have many friends in other specialties and industry who share this desire to make a difference. In addition to his role as President of the TSFRE, Dr. John Calhoun is playing an absolutely essential role in crystallizing these relationships," Dr. Fullerton said.

In particular, Dr. Fullerton explained how cardiothoracic surgeons can make a profound



In his Presidential Address, David A. Fullerton, MD said cardiothoracic surgeons are uniquely positioned to treat NCDs.

difference, using the example of R. Morton Bolman III, MD, Ceeya Patton-Bolman, RN, and their colleagues, whose volunteer work in

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STS Recognizes William Baumgartner for Leadership, Dedication

Yesterday evening, William A. Baumgartner, MD was awarded a Distinguished Service Award by STS.

The Distinguished Service Award, established in 1969, recognizes those who have made significant and far-reaching contributions to the Society and the specialty.

"Dr. Bill Baumgartner has served our specialty throughout his career and exemplifies the type of leader that we all should strive to be," said 2014-2015 STS President David A. Fullerton, MD. "He has served not only as the leader of the preeminent program at Johns Hopkins, but also has served tirelessly as a mentor and on committees in virtually every major organization in cardiothoracic surgery."

Dr. Baumgartner joined Johns Hopkins University in Baltimore in 1982, where he reinitiated the heart transplant program. For 17 years, he led the Division of Cardiac Surgery as the Cardiac Surgeon-in-Charge and today serves as the Vincent L. Gott Professor and Director of the Cardiac Surgical Research Laboratory.

An STS member since 1986, Dr. Baumgartner served

Continued on page 3



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Presidential Address

Continued from page 1

Rwanda made it one of the very few developing nations in which premature cardiovascular disease-related deaths have decreased, rather than increased, in the past decades.

“Our specialty is now ready to make an impact like this around the world. Today, this becomes an important core value of this organization. We stand ready to lead,” Dr. Fullerton said.

“There is clearly a great deal of work to do. I am confident we can do this together. And there’s only one way to do it.

“In the words of my mother – ‘Let’s begin,’” Dr. Fullerton concluded.

For information regarding grants for charitable surgical missions, visit tsfre.org



Dr. Fullerton said urbanization is leading to the growing burden of NCDs in developing countries.

Distinguished Service Award

Continued from page 1

the organization in many capacities, including as STS President in 2002-2003 at a time when the Society became self-managed. Currently, he is the Executive Director of the American Board of Thoracic Surgery (ABTS), where he also served for 6 years on the Board of Directors.

“As Executive Director of the ABTS, Bill has done a truly remarkable job of helping to guide our specialty by raising the standards for education, training, and knowledge,” said Dr. Fullerton. “Bill has had a tremendous career and, most importantly, has always served as a tremendous role model for all of us.”

Dr. Baumgartner received his undergraduate degree from Xavier University in Cincinnati, graduating Cum Laude in 1969. He received his medical degree from the University

of Kentucky, where he was elected to the Alpha Omega Alpha Medical Honor Society before completing residencies in general and

cardiothoracic surgery at Stanford University in California.

He is the author or coauthor of nearly 300 publications, more than 60 chapters, and seven books. He is the recipient of numerous awards and honors, including the STS Earl Bakken Scientific Research Award (2008), the Thoracic Surgery Residents Association Socrates Teacher of

the Year Award (2003, 2009), and the American Heart Association Council on Cardiovascular Surgery and Anesthesia Mentoring Award (2008).

He is married to Betsy Baumgartner with whom he has three accomplished children – Bill Jr., Amy, and Mark – and he is the proud grandfather of six grandchildren.



WILLIAM A. BAUMGARTNER, MD

CoreValve® Transcatheter Aortic Valve Replacement (TAVR) Platform

INDICATIONS The Medtronic CoreValve system is indicated for relief of aortic stenosis in patients with symptomatic heart disease due to severe native calcific aortic stenosis (aortic valve area $\leq 1.0 \text{ cm}^2$ or aortic valve area index $\leq 0.6 \text{ cm}^2/\text{m}^2$; a mean aortic valve gradient of $\geq 40 \text{ mm Hg}$, or a peak aortic-jet velocity of $\geq 4.0 \text{ m/s}$) and with native anatomy appropriate for the 23, 26, 29 or 31 mm valve system who are judged by a heart team, including a cardiac surgeon, to be at high or greater risk for open surgical therapy (i.e., Society of Thoracic Surgeons operative risk score $\geq 8\%$ or at a $\geq 15\%$ risk of mortality at 30 days).

CONTRAINDICATIONS The CoreValve system is contraindicated for patients presenting with any of the following conditions: • known hypersensitivity or contraindication to aspirin, heparin (HIT/HITS) and bivalirudin, ticlopidine, clopidogrel, Nitinol (Titanium or Nickel), or sensitivity to contrast media, which cannot be adequately premedicated • ongoing sepsis, including active endocarditis • preexisting mechanical heart valve in aortic position.

WARNINGS General Implantation of the Medtronic CoreValve system should be performed only by physicians who have received Medtronic CoreValve training. This procedure should only be performed where emergency aortic valve surgery can be performed promptly. Mechanical failure of the delivery catheter system and/or accessories may result in patient complications. *Transcatheter Aortic Valve (Bioprosthesis)* Accelerated deterioration of the bioprosthesis may occur in patients presenting with an altered calcium metabolism.

PRECAUTIONS General/The safety and effectiveness of the Medtronic CoreValve system have not been evaluated in the pediatric population. The safety and effectiveness of the bioprosthesis for aortic valve replacement have not been evaluated in the following patient populations: • without Aortic Stenosis (AS) • who are at moderate or low surgical risk (predicted perioperative mortality risk of $<15\%$) • with untreated, clinically significant coronary artery disease requiring revascularization • with a preexisting prosthetic heart valve in any position • with cardiogenic shock manifested by low cardiac output, vasopressor dependence, or mechanical hemodynamic support. The safety and effectiveness of a CoreValve bioprosthesis implanted within a failed preexisting transcatheter or surgical bioprosthesis have not been demonstrated. The safety and effectiveness of the bioprosthesis for aortic valve replacement have not been evaluated in patient populations presenting with the following: • blood dyscrasias as defined: leukopenia (WBC $<1000 \text{ cells/mm}^3$), thrombocytopenia (platelet count $<50,000 \text{ cells/mm}^3$), history of bleeding diathesis or coagulopathy, or hypercoagulable states • congenital bicuspid or unicuspid valve verified by echocardiography • mixed aortic valve disease (aortic stenosis and aortic regurgitation with predominant aortic regurgitation [3-4+]) • moderate to severe (3-4+) or severe (4+) mitral or severe (4+) tricuspid regurgitation • hypertrophic obstructive cardiomyopathy • new or untreated echocardiographic evidence of intracardiac mass, thrombus, or vegetation • native aortic annulus size $<18 \text{ mm}$ or $>29 \text{ mm}$ per the baseline diagnostic imaging • transarterial access not able to accommodate an 18Fr sheath • sinus of valsalva anatomy that would prevent adequate coronary perfusion • moderate to severe mitral stenosis • severe ventricular dysfunction with left ventricular ejection fraction (LVEF) $<20\%$ as measured by resting echocardiogram • end-stage renal disease requiring chronic dialysis or creatinine clearance $<20 \text{ cc/min}$ • symptomatic carotid or vertebral artery disease • severe basal septal hypertrophy with an outflow gradient.

Prior to Use Exposure to glutaraldehyde may cause irritation of the skin, eyes, nose, and throat. Avoid prolonged or repeated exposure to the vapors. Damage may result from forceful handling of the catheter. Prevent kinking of the catheter when removing it from the packaging. This device was designed for single patient use only. Do not reuse, reprocess, or resterilize this product. Reuse, reprocessing, or resterilization may compromise the structural integrity of the device and/or create a risk of contamination of the device, which could result in patient injury, illness, or death. The bioprosthesis size must be appropriate to fit the patient's anatomy. Proper sizing of the device is the responsibility of the physician. Refer to Instructions for Use for available sizes. Failure to implant a device within the sizing matrix could lead to adverse effects such as those listed below. Patients must present with femoral or subclavian/axillary access vessel diameters of $\geq 6 \text{ mm}$ or an ascending aortic (direct aortic) access site $\geq 60 \text{ mm}$ from the basal plane. Implantation of the bioprosthesis should be avoided in patients with aortic root angulation (angle between plane of aortic valve annulus and horizontal plane/vertebrae) of $>30^\circ$ for right subclavian/axillary access or $>70^\circ$ for femoral and left subclavian/axillary access. Use caution when using the subclavian/axillary approach in patients with a patent LIMA graft or patent RIMA graft.

During Use Adequate rinsing of the bioprosthesis with sterile saline, as described in the Instructions for Use, is mandatory before implantation. During rinsing, do not touch the leaflets or squeeze the bioprosthesis. If a capsule becomes damaged during loading or the capsule fails to close, replace the entire system (bioprosthesis, catheter, and CLS). Do not use a catheter with a damaged capsule. After a bioprosthesis has been inserted into a patient, do not attempt to reload that bioprosthesis on the same or any other catheter. During implantation, if resistance to deployment is encountered (e.g., the micro knob starts clicking or is tight or stuck), apply upward pressure to the macro slider while turning the micro knob. If the bioprosthesis still does not deploy, remove it from the patient and use another system. While the catheter is in the patient, ensure the guidewire is extending from the tip. Do not remove the guidewire from the catheter while the catheter is inserted in the patient. Once deployment is initiated, retrieval of the bioprosthesis from the patient (e.g., use of the catheter) is not recommended. Retrieval of a partially deployed valve using the catheter may cause mechanical failure of the delivery catheter system, aortic root damage, coronary artery damage, myocardial damage, vascular complications, prosthetic valve dysfunction (including device malposition), embolization, stroke, and/or emergent surgery. During deployment, the bioprosthesis can be advanced or withdrawn as long as annular contact has not been made. Once annular contact is made, the bioprosthesis cannot be advanced in the retrograde direction; if necessary, and the frame has only been deployed $\leq 2/3$ of its length, the bioprosthesis can be withdrawn (repositioned) in the antegrade direction. However, use caution when moving the bioprosthesis in the antegrade direction. Use the handle of the delivery system to reposition the bioprosthesis. Do not use the outer catheter sheath. Once deployment is complete, repositioning of the bioprosthesis (e.g., use of a snare and/or forceps) is not recommended. Repositioning of a deployed valve may cause aortic root damage, coronary artery damage, myocardial damage, vascular complications, prosthetic valve dysfunction (including device malposition), embolization, stroke, and/or emergent surgery. Do not attempt to retrieve a bioprosthesis if any one of the outflow struts is protruding from the capsule. If any one of the outflow struts has deployed from the capsule, the bioprosthesis must be released from the catheter before the catheter can be withdrawn. Ensure the capsule is closed before catheter removal. If increased resistance is encountered when removing the catheter through the introducer sheath, do not force passage. Increased resistance may indicate a problem and forced passage may result in damage to the device and/or harm to the patient. If the cause of resistance cannot be determined or corrected, remove the catheter and introducer sheath as a single unit over the guidewire, and inspect the catheter and confirm that it is complete. Clinical long-term durability has not been established for the bioprosthesis. Evaluate bioprosthesis performance as needed during patient follow-up. Postprocedure, administer appropriate antibiotic prophylaxis as needed for patients at risk for prosthetic valve infection and endocarditis. Postprocedure, administer anticoagulation and/or antiplatelet therapy per hospital protocol. Excessive contrast media may cause renal failure. Preprocedure, measure the patient's creatinine level. During the procedure, monitor contrast media usage. Conduct the procedure under fluoroscopy. The safety and efficacy of implanting a second CoreValve bioprosthesis within the initial CoreValve bioprosthesis have not been demonstrated. However, in the event that a second CoreValve bioprosthesis must be implanted within the initial CoreValve bioprosthesis to improve valve function, valve size and patient anatomy must be considered before implantation of the second CoreValve bioprosthesis to ensure patient safety (e.g., to avoid coronary obstruction). In the event that valve function or sealing is impaired due to excessive calcification or incomplete expansion, a post-implant balloon dilatation of the bioprosthesis may improve valve function and sealing. To ensure patient safety, valve size and patient anatomy must be considered when selecting the size of the balloon used for dilatation. The balloon size chosen for dilatation should not exceed the diameter of the native aortic annulus. Refer to the specific balloon catheter manufacturer's labeling for proper instruction on the use of balloon catheter devices. Note: Bench testing has only been conducted to confirm compatibility with NUMED Z-MED II Balloon Aortic Valvuloplasty catheters where CoreValve bioprosthesis device performance was maintained after dilation. Data on File.

POTENTIAL ADVERSE EVENTS Potential risks associated with the implantation of the Medtronic CoreValve transcatheter aortic valve may include, but are not limited to, the following: • death • cardiac arrest • coronary occlusion, obstruction, or vessel spasm (including acute coronary closure) • emergent surgery (e.g., coronary artery bypass, heart valve replacement, valve explant) • multi-organ failure • heart failure • myocardial infarction • cardiogenic shock • respiratory insufficiency or respiratory failure • cardiovascular injury (including rupture, perforation, or dissection of vessels, ventricle, myocardium, or valvular structures that may require intervention) • ascending aorta trauma • cardiac tamponade • cardiac failure or low cardiac output • prosthetic valve dysfunction including, but not limited to, fracture; bending (out-of-round configuration) of the valve frame; over-expansion of the valve frame; calcification; pannus; leaflet wear, tear, prolapse, or retraction; poor valve coaptation; suture breaks or disruption; leaks; mal-sizing (prosthetic-patient mismatch); malposition (either too high or too low/malplacement; regurgitation; stenosis • thrombosis/embolus (including valve thrombosis) • valve migration/valve embolization • ancillary device embolization • emergent percutaneous coronary intervention (PCI) • emergent balloon valvuloplasty • major or minor bleeding that may or may not require transfusion or intervention (including life-threatening or disabling bleeding) • allergic reaction to antiplatelet agents, contrast medium, or anesthesia • infection (including septicemia and endocarditis) • stroke, TIA, or other neurological deficits • permanent disability • renal insufficiency or renal failure (including acute kidney injury) • mitral valve regurgitation or injury • tissue erosion • vascular access related complications (e.g., dissection, perforation, pain, bleeding, hematoma, pseudoaneurysm, irreversible nerve injury, compartment syndrome, arteriovenous fistula, stenosis) • conduction system disturbances (e.g., atrioventricular node block, left-bundle branch block, asystole), which may require a permanent pacemaker.

Please reference the CoreValve Instructions for Use for more information regarding indications, warnings, precautions and potential adverse events.

CAUTION Federal law (USA) restricts this device to sale by or on the order of a physician.

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11:00 a.m. – 12:00 p.m.

C. Walton Lillehei Lecture: Patrick T. O'Gara
Ballroom 20

12:00 p.m. – 1:00 p.m.

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

Room 30E

Residents Luncheon

Room 28CD

1:00 p.m. – 3:00 p.m.

Adult Cardiac Session: General I
Room 32ABC

Adult Cardiac Session: Mitral Valve
Room 31AB

Congenital Session: Pediatric Congenital II
Room 30CD

General Thoracic Session: Esophageal
Room 30AB

General Thoracic Session: Lung Cancer II
Ballroom 20AB

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

Room 29D

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

Room 33ABC

Strategies to Improve Outcomes With Long-Term Mechanical Circulatory Support Devices
Room 30E

1:00 p.m. – 5:00 p.m.

JCTSE/STS Workforce on International Relationships: Globalization of Graduate Surgical Education in Cardiothoracic Surgery
Room 29AB

3:30 p.m. – 5:30 p.m.

Adult Cardiac Session: Aortic Valve
Ballroom 20AB

Adult Cardiac Session: General II
Room 32AB

Cardiothoracic Surgical Education
Room 30AB

Congenital Session: Pediatric Congenital III
Room 30CD

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

Room 30E

General Thoracic Session: Mediastinal/Pulmonary
Room 33ABC

Role of SBRT in Lung Cancer Treatment
Room 31ABC

SVS @ STS

Room 29D

Wednesday

6:30 a.m. – 9:30 a.m.

Registration: STS University
Lobby D and Lobby G

7:00 a.m. – 9:00 a.m.

STS University
Hall G

9:30 a.m. – 11:30 a.m.

STS University (courses repeated)
Hall G

Allen Elected STS President

Continued from page 1

specialty forward. We need their efforts to enhance advocacy in Washington, DC, improve the education of our surgeons, and continue innovation in patient care."

A member of STS since 1991 and a longtime volunteer, Dr.

Allen most recently served as STS First Vice President. His clinical interests include esophageal surgery and pulmonary surgery.

Dr. Allen lives with his wife Patricia in Rochester, Minn. The couple has two sons, Patrick and Michael.

Pedro del Nido to Give Ferguson Lecture

Pedro J. del Nido, MD, President of the American Association for Thoracic Surgery, will present the Thomas B. Ferguson Lecture on Tuesday in Ballroom 20 at 9:00 a.m. He is Chief of Cardiac Surgery and the William E. Ladd Professor of Child Surgery, Harvard Medical School, Boston. He does basic research on metabolic and structural changes in the heart in left ventricular hypertrophy.



PEDRO J. DEL NIDO, MD

Attend the C. Walton Lillehei Lecture

This year, the prestigious C. Walton Lillehei Lecture will be given by Patrick T. O'Gara, MD on Tuesday morning at 11:00 a.m. in Ballroom 20. Dr. O'Gara is the President of the American College of Cardiology and serves as the Director of Clinical Cardiology at Brigham and Women's Hospital. He is also a Professor of Medicine at Harvard Medical School in Boston.



PATRICK T. O'GARA, MD

The Annals of Thoracic Surgery Names New Editor

At the Business Meeting last night, STS membership elected innovative lung surgeon G. Alexander Patterson, MD, FRCSC as the new Editor of *The Annals of Thoracic Surgery*.

"I have tremendous respect for all four previous Editors who worked tirelessly over the past 50 years to make *The Annals* what it is today, and I'm absolutely honored and excited to take over as Editor," said Dr. Patterson, who is the Joseph C. Bancroft Professor of Surgery at Washington University in St. Louis. "I believe *The Annals* can be the preeminent journal for cardiothoracic surgeons, and I look forward to leading the team that will continue to grow and improve the reputation of the journal."

In one of his first initiatives as Editor, Dr. Patterson said he hopes to better align the activities of the journal to those of STS and, specifically, the STS National Database. "I think there are ways in

which we could parlay the Database activity into feature articles or reports that would augment the science included in the journal and expand the type of information we can provide to surgeons," said Dr. Patterson.

He also plans to increase the multimedia components of the journal, including podcasts, narrated PowerPoint slides, and interactive learning opportunities.

"STS is a leader in education and innovation in the field of cardiothoracic surgery and there is much that the journal can do to

take advantage of existing resources," said Dr. Patterson. "I believe the journal can build upon the activities of the Society and develop content that reaches beyond the scientific research that is its foundation."

The editorial staff for *The Annals* will now be located at STS headquarters in Chicago. Under Immediate Past Editor L. Henry Edmunds, MD, the editorial staff

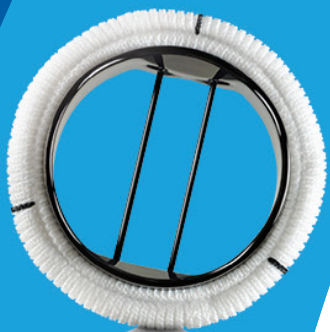
was located at the University of Pennsylvania in Philadelphia.

While serving as Editor, Dr. Patterson will continue his clinical duties at Washington University, where he specializes in lung transplantation and lung surgery for cancer and emphysema. Born in Canada, he held a number of positions at the University of Toronto before moving to St. Louis in 1991. He also served as President of the Thoracic Surgery Foundation for Research and Education, the American Association for Thoracic Surgery, and the International Society for Heart and Lung Transplantation.

Dr. Patterson's editorial experience includes 16 years with *The Journal of Thoracic and Cardiovascular Surgery*, including 12 years in which he served as Section Editor for *General Thoracic Surgery*. He also was the first Thoracic Deputy Editor of the *American Journal of Transplantation*, Associate Editor of *The Journal of Heart and Lung Transplantation*, and a member of the *Transplantation Proceedings* Editorial Board. He has more than 400 published research papers.

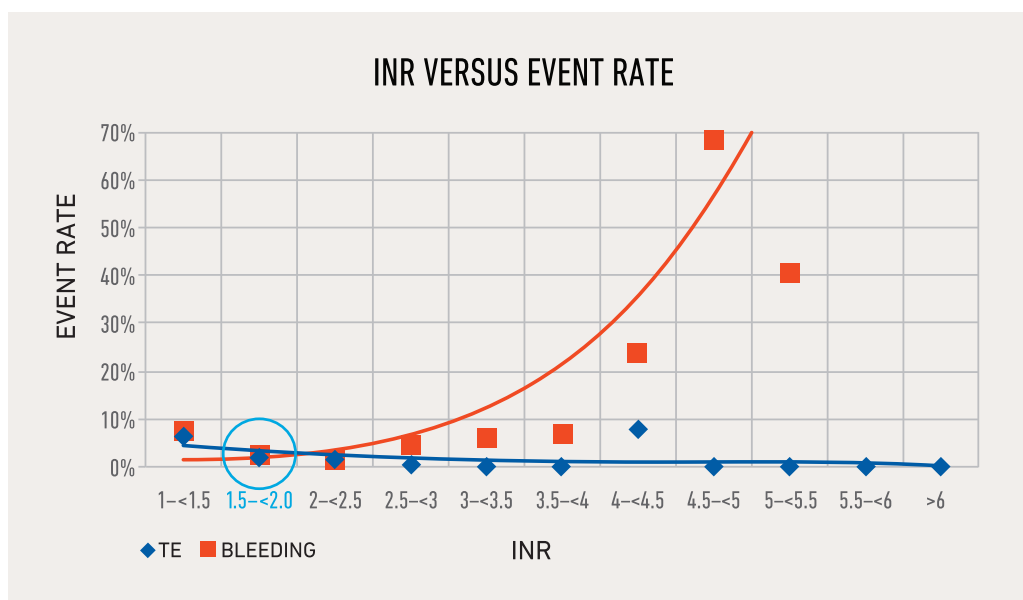


G. ALEXANDER PATTERSON, MD, FRCSC



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1. Puskas J, Gerdisch M, Nichols D, et al. Reduced anticoagulation after mechanical aortic valve replacement: Interim results from the Prospective Randomized On-X® Valve Anticoagulation Clinical Trial randomized Food and Drug Administration investigational device exemption trial. *J Thorac Cardiovasc Surg.* 2014;147(4):1202-11.

On-X aortic heart valves are FDA approved.

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Consider Long-Term Outcomes After Aortic Dissection

A type A, or DeBakey I, aortic dissection is a catastrophic event, and historically surgeons have focused on boosting acute survival. But now that top centers achieve 85%-90% survival rates at 30 days, the focus is shifting to developing new techniques in order to improve longer-term outcomes.

STS and the European Association for Cardio-Thoracic Surgery jointly organized the session "Management of the Aortic Arch in Aortic Dissection" to highlight what may be one of the



JOSEPH E. BAVARIA, MD

biggest issues facing cardiothoracic surgeons today, said session co-moderator Joseph E. Bavaria, MD, from the University of Pennsylvania



RUGGERO DE PAULIS, MD

time around. "Diagnosis and immediate surgical treatment are of paramount importance in reducing overall

in Philadelphia.

"We are getting more comfortable with the concept of an extended initial aortic-arch procedure to reduce late events," said Dr. Bavaria.

Using current techniques, patients who survive the first 30 days after surgery still face a high risk from late distal aortic events in a region of the aorta that did not get repaired the first

mortality in type A dissections," said co-moderator Ruggero De Paulis, MD, from the European Hospital in Rome.

"Certain groups of patients will require one or more subsequent reoperations due to disease progression or another complication. Proper management of the dissected arch is a key factor in improving the surgical result. In some patients, total arch replacement is necessary, but some surgeons now propose total arch replacement for many other cases as a more radical treatment to prevent downstream complications and future reoperations," Dr. De Paulis explained.

"There is ongoing debate whether the primary operation should be kept as simple as possible and mainly aim to save the patient's life, or should initial surgery instead be more extensive and complex with the objective of reducing the need for reoperation later."

The potential downside of a more complex primary operation is that it might result in higher operative mortality.

"During this session, the speakers will discuss the various surgical options available today, ranging from standard ascending-aorta replacement with a hemi-arch procedure to hybrid solutions and the use of new vascular prostheses that might help simplify more radical treatment of the disease," Dr. De Paulis said.

"Attendees will learn about selecting the strategy that best suits the different clinical and anatomical presentations they might face in daily practice."

Joint STS-ESTS Session to Focus on Controversies

STS and the European Society of Thoracic Surgeons have collaborated this year to provide the North American and European perspectives on four interesting and sometimes controversial topics in general thoracic surgery.

The surgical management of malignant mesothelioma, computed tomography screening for lung cancer, credentialing surgeons in new technologies and procedures, and the role of robotics in the surgical management of lung and esophageal malignancies will be addressed during the Tuesday

afternoon session, which will be co-moderated by Sean C. Grondin, MD, MPH, of Calgary, Canada, and Dirk E.M. Van Raemdonck, MD, of Leuven, Belgium.

For each topic, one speaker will provide the European perspective, and another will present the North American perspective.

Following each set of topic presentations, a panel discussion – including a question and answer session – "will highlight some of the different perspectives for each of these particular controversies and how they are managed in each of these two continents," Dr.

Grondin said.

"The importance of this joint STS-ESTS session is that we can compare current practice for novel and sometimes controversial thoracic procedures between North America and Europe. It will be interesting to hear the differences or similarities," Dr. Van Raemdonck added.

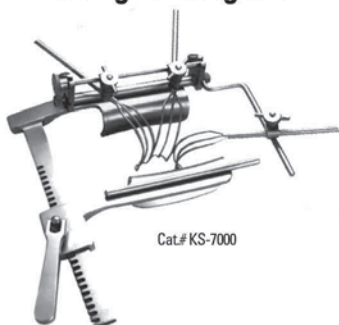
ESTS @ STS: Controversial Issues in General Thoracic Surgery – Perspectives From Europe and North America

TUESDAY, 3:30 p.m. – 5:30 p.m.
Room 30E

The Original Cosgrove® Mitral Valve Retractor & McCarthy Mini-Sternotomy Retractor

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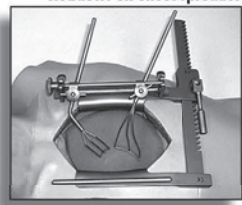
The Original Cosgrove® Mitral Valve Retractor



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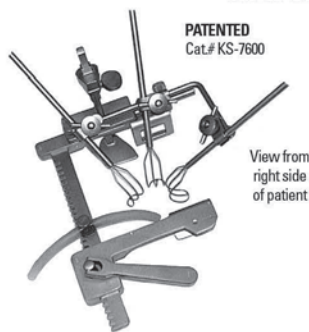
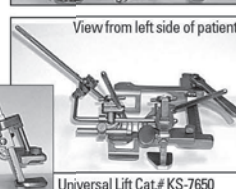
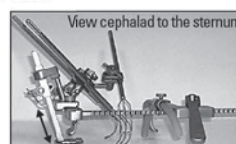
Gillinov™/Maze Self Retaining
Retractor on Chest Spreader



Gillinov™/Maze Self Retaining
Retractor Blades

Cat# KS-7211 Set

McCarthy Mini-Sternotomy Retractor with Universal Lift

PATENTED
Cat# KS-7600View from
right side of
patient

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STS/EACTS: Management of the
Aortic Arch in Aortic Dissection
TUESDAY, 1:00 p.m. – 3:00 p.m.
Room 33ABC

Attend Tuesday's Ethics Debate

Richard G. Ohye, MD (PRO) and James Jagers, MD (CON) will debate the timely question, "Must Surgeons in Training Programs Allow Residents to Operate on Their Patients to Satisfy Board Requirements?" from 12:00 p.m. to 1:00 p.m. in Room 30E.

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New Session Will Explore Surgeons' Potential Role in SBRT

Stereotactic body radiation therapy, or SBRT, is increasingly used for the treatment of early lung cancer, but the therapy remains controversial, and the appropriate role of surgeons in its delivery remains unclear, according to Stephen Hazelrigg, MD.

On Tuesday afternoon during a new session titled "Role of SBRT in Lung Cancer Treatment," a panel of experts will present the latest information on the therapy, including information on how surgeons can get involved with an SBRT program, said Dr. Hazelrigg of Southern Illinois University, Springfield, who will co-moderate the session with Neil A. Christie, MD, of the University of Pittsburgh Medical Center (UPMC).

The session will begin with a review of contemporary results with SBRT by Robert Timmerman, MD, a radiation therapist from Dallas who will provide "the latest information from the SBRT camps" with respect to outcomes, Dr. Hazelrigg said.

Next, Traves Crabtree, MD, of St. Louis, will provide the latest data on surgery for early stage lung cancer for comparison with outcomes in patients who undergo SBRT.

A discussion of the role of minimally invasive treatments other than SBRT for lung cancer by Hiran C. Fernando, MD, of Boston, will follow.

"We're trying here to figure out the best way to incorporate SBRT and when it should be used, especially in early lung cancers. There's a lot of debate about when we should use it and whether surgery should be done.

There's not much controversy in late stage lung cancer or very old patients, but the question is more in early stage patients who could be treated surgically," Dr. Hazelrigg said.

Dr. Christie will discuss his own experience with successfully integrating SBRT and other ablative techniques into a surgery practice.

At some centers, patients are evaluated by both surgeons and radiation therapists in a multidisciplinary conference to determine the best route, while at others, patients are referred to one or the other, and surgeons may have no involvement at all, he said.

The topic is important because this is a very new technology, and there are a lot of questions and concern about SBRT being overused without adequate data.

The session will close with a roundtable discussion on the future role of SBRT in early stage lung cancer.

Attendees can expect to gain an improved understanding of SBRT and of practical considerations for starting an SBRT program with surgeon involvement or becoming involved with an existing program. "I'm hoping we will understand much better what data are out there to help make the best decisions for our patients," Dr. Hazelrigg said.

Role of SBRT in Lung Cancer Treatment

TUESDAY, 3:30 p.m. – 5:30 p.m.
Room 31ABC

Presenters Meet the Media in STS Press Conferences

The Society will host four press conferences on Tuesday highlighting some of the ground-breaking research being presented at the STS 51st Annual Meeting.

The press conferences will take place in Show Office E at 10:00 a.m.

Clinical Feasibility Trial for the Branched Endovascular Treatment of the Distal Aortic Arch
Speaker: Himanshu J. Patel, University of Michigan Medical Center, Ann Arbor
Pressurized Cadaver Model in Cardiothoracic Surgical Simulation

Speaker: Christina L. Greene, Keck School of Medicine of the University of Southern California, Los Angeles

Red Blood Cell Transfusions Impact Pneumonia Rates After Coronary Artery Bypass Grafting Surgery
Speaker: Donald S. Likosky, University of Michigan Health System, Ann Arbor
Using 3D Printing Technology as a Tool for Tracheal Tissue Engineering

Speaker: Todd Goldstein, North Shore-LIJ Health System, Manhasset, N.Y.

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Assessing 40 Years of Transplants

While the risk profile of pediatric heart transplant patients at Stanford University has increased over time, long-term survival has improved significantly and consistently, according to findings from a review of 338 cases over 40 years. These findings will be presented Tuesday afternoon by Olaf Reinhartz, MD.

The cases included in the study – all pediatric heart transplants at Stanford between 1974 and 2014 – were grouped by era, including 98 transplants performed during the first 20 years, 91 performed during the subsequent 10 years, and 149 performed during the most recent 10 years.

Follow-up was a remarkable 100%, and the average age at the time of diagnosis for each era, respectively, was 9.9, 12.1, and 6.9 years. The percentage of transplants performed in infants was 20%, 7%, and 17%, respectively, Dr. Reinhartz said.

End-stage congenital heart disease (versus cardiomyopathy) was the indication in 31%, 25%, and 44% of cases in the three eras, respectively. Patients transplanted from mechanical support increased from

1% in era 1 to 14% and 31% in eras 2 and 3, respectively. Survival was significantly improved in each era, as compared with the prior era.

Dr. Reinhartz noted that the complexity of pediatric heart transplantation and the profile of pediatric transplant candidates have changed dramatically over time due to three main factors. First, infant transplants became successful. Second, palliation of congenital heart disease, particularly single ventricle disease, became successful, leading to larger numbers of survivors from congenital heart surgery (registry data indicate that 40% of pediatric heart transplantations in North America are performed for congenital heart disease). Finally, the shift from extracorporeal membrane oxygenation toward durable ventricular assist devices has led to about a third of pediatric patients now being mechanically bridged to transplant, he said.

Congenital Session: Pediatric Congenital III
TUESDAY, 3:30 p.m. – 5:30 p.m.
Room 30CD

Are LVAD Problems Increasing?

While some studies have reported an increased prevalence and earlier onset of left ventricular assist

device (LVAD) pump thrombosis and pump exchanges, it's been unclear whether all centers experience this, said Fenton McCarthy, MD, a thoracic surgery resident at the Hospital of the University of Pennsylvania in Philadelphia. During a Tuesday presentation on techniques to improve long-term mechanical circulatory support

devices, Dr. McCarthy will discuss research using data for all 3,166 US Medicare patients with an LVAD implanted between January 1, 2009, and December 31, 2012.

"What we found was that pump exchanges remain rare, and overall survival for the entire cohort remained unchanged," Dr. McCarthy said. "But if the LVAD was implanted after March 2011, there was a two- to three-fold higher rate of pump exchange, and if patients had that procedure, they

were at increased risk for mortality compared to those who did not have it. We know that more devices are being implanted every year, so is the increase

in exchanges just because more people are getting devices or an indicator of another trend?" Dr. McCarthy added.

"The overall trend in the data suggests that LVAD pump exchanges are occurring more frequently throughout the nation," said senior study author Nimesh D. Desai, MD, director of the Thoracic Aortic Surgery

Research Program at Penn. "While it is impossible to determine the exact causes from administrative data sources, changes in patient characteristics, anticoagulation protocols, and VAD design may potentially be involved."

Strategies to Improve Outcomes With Long-term Mechanical Circulatory Support Devices
TUESDAY, 1:00 p.m. – 3:00 p.m.
Room 30E



FENTON MCCARTHY, MD

Noncardiac Surgery Outcomes Improve With Resident Participation

When residents were involved in noncardiac thoracic procedures, outcomes improved, according to a study, "The Impact of Thoracic Residents on Surgical Outcomes and Failure to Rescue Patients Having Noncardiac Thoracic Operations," to be presented by Victor A. Ferraris, MD, of the University of Kentucky Chandler Medical Center, Lexington, on Tuesday afternoon.

Dr. Ferraris and his colleagues evaluated outcomes in 22,168 patients from the American College of Surgeons-National Surgical Quality Improvement Program (ACS-NSQIP) database who had noncardiac thoracic operations – including esophageal and pulmonary resections – for whom adequate information was available.

They compared noncardiac thoracic operations to other nonthoracic specialty procedures in the database, and compared resident outcomes to attending-only outcomes in noncardiac thoracic procedures.

Serious postoperative complications occurred in 6,157 patients (28%), and 655 of those patients (3.0%) died. Logistic regression analysis showed that surgical resident involvement significantly improved failure-to-rescue rates (odds ratio, 0.85). Importantly, overall mortality decreased significantly with resident involvement in noncardiac thoracic operations (odds ratio, 0.76).

Notably, other nonthoracic specialties saw greater morbidity, mortality, failure to rescue, and resource utilization with resident-related procedures, compared with procedures performed by cardiothoracic surgeons, Dr. Ferraris said.

"The distinctive feature of the noncardiac thoracic procedures evaluated for this study was involvement of senior level residents; residents in postgraduate year 6, 7, or greater than 7 were involved in more than half of the procedures, whereas junior residents participated in the majority of other nonthoracic subspecialty procedures," he noted, suggesting that the presence of senior level residents was a key discriminating factor in the improved outcomes.

"We speculate that teaching programs provide infrastructure, including vigilant postoperative care, and the involvement of senior level residents facilitates treatment of serious postoperative complications and potentially salvages lives after complicated operations. There seems to be no substitute for experienced resident involvement," Dr. Ferraris said.

Future trends in resident-related outcomes need to be tracked, he added.

Cardiothoracic Surgical Education
TUESDAY, 3:30 p.m. – 5:30 p.m.
Room 30AB


STS Past Presidents



Newly elected STS President Mark S. Allen, MD (top, second from left) joined fifteen Past Presidents at a dinner honoring the rich history of Society leadership.

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STS University Wet Labs Offered Wednesday Morning

STS University will provide attendees with hands-on experience in cardiothoracic procedures. Lecture materials are available online at www.sts.org/annualmeeting. The following wet labs will be held on Wednesday, January 28, from 7:00 a.m. to 9:00 a.m. and repeated from 9:30 a.m. to 11:30 a.m.

Course 1: TAVR/TEVAR, Guidewires, and Sheaths

Michael P. Fischbein, Stanford, Calif., and Wilson Y. Szeto, Philadelphia, Pa. 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 experience will provide participants with the opportunity to either practice or observe an expert perform procedures utilizing the latest technology, including transfemoral, direct aortic, left subclavian, and transapical TAVR, as well as all aspects of TEVAR.

Course 2: Mitral Valve Repair

Gorav Ailawadi, Charlottesville, Va., and Harold Roberts Jr., Aventura, Fla. 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.

Course 3: Valve-Sparing Aortic Root Replacement

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.

Course 4: Aortic Root Enlarging Procedures

John W. Brown, Indianapolis, Ind., and S. Adil Husain, San Antonio, Tex.

Surgical aortic root enlarging procedures addressed will include Nicks, Manouagian, Mavroudis, Ross Konno, upsizing the aortic root–Bentall type procedure, and myectomy/myotomy techniques.

Course 5: ICU/ECHO

Haney Mallemat, Baltimore, Md., and

Glenn J.R. Whitman, Baltimore, Md. This course will review the utilization of a focused ultrasound examination of the heart and major vessels, such as the aorta and IVC.

Course 6: Long-Term Circulatory/Respiratory Support

Ashish Shah, Baltimore, Md., and Scott C. Silvestry, St. Louis, Mo.

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.

Course 7: Advanced Endotracheobronchial Procedures

Rafael Andrade, Minneapolis, Minn., and Moïse A. Liberman, Montreal, Canada

Endobronchial ultrasound and endoscopic ultrasound have attained firm places in the endoscopic diagnostic and staging armamentarium of mediastinal lymph nodes. Electromagnetic navigation bronchoscopy is an interesting technology aimed at facilitating the endoscopic biopsy of peripheral lung lesions.

Course 8: VATS Lobectomy

Shanda H. Blackmon, Rochester, Minn., and Shari L. Meyerson, Chicago, Ill. The course will review the indications, patient selection,

technical steps, and recent advances in 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.

Course 9: Advanced Esophageal and Tracheal Procedures

Sidharta P. Gangadharan, Boston, Mass., and Thomas K. Varghese Jr., Seattle, Wash.

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.

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

Sitaram M. Emani, Boston, Mass., and John E. Mayer Jr., Boston, Mass.

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.

Attend Tech Demos at the TECHbar

An exciting new amenity at the 2015 Annual Meeting is the TECHbar, which is located in the Exhibit Hall. Stop by for answers to all of your technical questions – three experts can help you with both personal and professional tasks, such as downloading and using the STS Annual Meeting Mobile App, troubleshooting issues with your smartphone or tablet, and more. You can also attend these free educational sessions on various technology topics of interest:

Tuesday, January 27

10:15 a.m. – 10:45 a.m.

Tech and Solutions: Note Taking and Data Capturing – Speech and Handwriting Recognition

Are you still taking notes with pen and paper? TECHbar experts will help you change that. They’ll share some

options for note taking on your mobile devices with speech and handwriting recognition features.

12:00 p.m. – 12:30 p.m.

Productivity Apps for Teams and Office Environment

Apps don’t always mean fun and games. Many apps can help transform you and your team’s productivity. TECHbar experts will provide an overview of these apps and how they can help you and your team.

12:30 p.m. – 1:00 p.m.

Presentations for Education – Tools and Techniques

Ensure that your audience is engaged and taking away the knowledge they need. TECHbar experts will share presentation tools and techniques that will enhance your next educational talk.



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Preop Radiation No Benefit Over Chemo Alone

Preoperative chemotherapy (CT) alone or combined chemoradiation (CXRT) had no significant effect on morbidity or survival in patients with locally advanced esophageal adenocarcinoma, according to Jonathan Spicer, MD, of the MD Anderson Cancer Center, Houston, and his colleagues. Their database study of 214 patients with cT3N+ adenocarcinoma (114 with preoperative CT, 100 with CXRT) found no significant differences in major postoperative morbidity between both groups. Mortality at 90 days was 5.3% for CT versus 4% for CXRT. Median longer-term survival was also not significantly different between CT (31 months) and CXRT (39 months).

"Since most patients die from metastatic disease, the added value of radiation for local control is suspect. Greater efforts need to be directed towards improved systemic therapies. Our study suggests that an appropriate North American randomized clinical trial comparing preop CXRT and CT in locally advanced esophageal adenocarcinoma and followed by en-bloc esophagectomy is needed," Dr. Spicer stated.

General Thoracic Session: Esophageal

TUESDAY, 1:00 p.m. - 3:00 p.m.
Room 30AB

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The Society
of Thoracic
Surgeons

52ND ANNUAL
MEETING
& EXHIBITION

PHOENIX, ARIZONA

JANUARY 23-27, 2016
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Join the Conversation Online!

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sure to use the hashtag #STS2015.

After the Annual Meeting is over, the STS Facebook and



Twitter pages will continue to deliver news on future STS events and CME credit opportunities.

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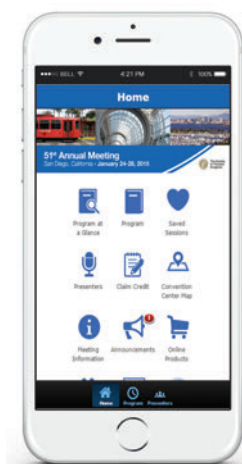
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STS 51st Annual Meeting Exhibitors

3si Surgical Safety Solutions 634

Burlington, MA

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

A&E Medical Corporation 922

Durham, NC

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

Abbott Vascular 427

Santa Clara, CA

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

ACUTE Innovations 221

Hillsboro, OR

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

Admedus 433

Minneapolis, MN

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

Aesculap 926

Center Valley, PA

Aesculap Inc., a member of the B. Braun family of health care companies, is the world's largest manufacturer of surgical instrumentation. For more than 138 years, Aesculap has provided customers with surgical instrumentation for ENT, plastic and reconstructive, thoracic, microvascular, cardiovascular, and laparoscopic surgery.

American Association for Thoracic Surgery 414

Beverly, MA

Founded in 1917, the American Association for Thoracic Surgery is dedicated to excellence in research, education, and innovation in cardiothoracic surgery and has become an international professional organization of more than 1,300 of the world's foremost cardiothoracic surgeons. www.aats.org

ATMOS 735

Allentown, PA

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

AtriCure Inc. 815

West Chester, OH

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

STS Exhibit Hall Hours

Tuesday, January 27
9:00 a.m. – 3:00 p.m.

B. Braun Interventional Systems Inc. 1604

Bethlehem, PA

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

Baxter Healthcare 1227

Deerfield, IL

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

Berlin Heart Inc. 619

The Woodlands, TX

Berlin Heart is the only company worldwide that develops, manufactures, and distributes

Continued on following page

The information listed here is accurate as of January 9, 2015. The information for these products and services was provided by the exhibitors, and inclusion in this publication should not be construed as a product endorsement by STS.

First-time exhibitors are highlighted in yellow. Exhibitors highlighted in blue are advertisers of *The STS Meeting Bulletin*. A yellow and blue shaded company is both.

ENTRANCE ENTRANCE

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Lobby INFORMATION

Continued from previous page

ventricular assist devices for patients of every age and body size. EXCOR® Pediatric provides medium- to long-term circulatory support specifically for infants and children awaiting heart transplants. EXCOR Pediatric is approved for use in the United States under Humanitarian Device Exemption regulations by the FDA.

BFW Inc. 522

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

Bio-Gate USA 1608

Buena Park, CA
Bio-Gate USA, Inc. is the exclusive distributor for Xenosys products, such as the lightweight surgical telescope, small and bright medical LED headlight system, and camera system. The company has been located in Southern California since 1999.

Biomed Simulation Inc. 409

Poway, CA
Biomed Simulation Inc. supplies patient simulators for surgical and critical care applications. Biomed's flagship simulator, "Califia," connects directly to an HLM or ECMO machine providing realistic patient responses. Its programmability and integration with a wide range of monitors allow the delivery of consistent, robust clinical scenarios.

Biomet Microfixation 826

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

Bolton Medical 933

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

Bryan Corporation 1137

Woburn, MA

CardiacAssist, Inc. 1602

Pittsburgh, PA
CardiacAssist, inventor of the TandemHeart® Extracorporeal Circulatory Support System, offers versatile mechanical circulatory support treatment options. While the company is best known for its Left Ventricular Support platform, it recently launched a line of arterial cannulae and the PROTEK Duo™ Veno-Venous dual lumen

cannula. Stop by booth #1602 to learn more.

Cardiomedical GmbH 306

Langenhagen, Germany

CareFusion 727

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

Castle Biosciences 832

Greensboro, NC

Chase Medical 1236

Richardson, TX
Chase Medical is dedicated to cardiac surgeons by delivering a full line of beating heart stabilization products for off-pump procedures. Chase also manufactures and distributes the unique SVR product used in ventricular restoration, as well as the Triumph Cannula, a minimally invasive aortic occlusion device.

ClearFlow 636

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

ConvaTec 934

Bridgewater, NJ
ConvaTec is a leading developer and marketer of innovative medical technologies, including AQUACEL® Ag SURGICAL cover dressing. As the only cover dressing to incorporate unique patented Hydrofiber® technology, it helps improve outcomes by locking in fluid, including harmful bacteria, and releasing ionic silver to help reduce the risk of infection.

Cook Medical 1133

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

CorMatrix 527

Roswell, GA
CorMatrix® Cardiovascular markets its ECM® Bioscaffold devices for vascular repair, pericardial repair and reconstruction, cardiac tissue repair, and CanGaro ECM Envelope. The company is currently conducting preclinical studies to evaluate other cardiac and vascular applications.

Covidien 1311

New Haven, CT
Covidien is a leading global health care products company that creates innovative medical solutions for better patient outcomes and delivers value

through clinical leadership and excellence. Please visit www.covidien.com/surgical to learn more.

CryoLife 511

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

CT Assist 313

Philippi, WV

CTSNet 410

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

Davol Inc. 1321

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

Designs for Vision 520

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

DGMR / Global Intercepts 405

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

Dilon Technologies 315

Newport News, VA
Dilon Technologies Inc. manufactures the Navigator gamma positioning system with Daniel Lung Probe. The Daniel Probe addresses the challenges of localizing small, indeterminate lesions in MIS pulmonary procedures. This VATS technique uses radioisotope localization to facilitate rapid, precise identification of targeted tissue, while minimizing the resection of healthy tissue.

Domain Surgical 300

Salt Lake City, UT
Domain Surgical's FMX Ferromagnetic Surgical System is an advanced thermal energy surgical platform that uses ferromagnetic technology

to cut, coagulate, and seal tissue. A variety of surgical tools have been designed to bring the unique clinical benefits of this technology to a broad array of surgical subspecialties.

Dornier MedTech America, Inc. 1232

Kennesaw, GA
Dornier MedTech is committed to providing innovative solutions for a variety of health care fields worldwide and revolutionizes spider and varicose vein treatments by offering multifunctional, state-of-the-art, high performance diode lasers.

EBM 1521

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

Edwards Lifesciences 901

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

Elsevier 1327

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

Enova Illumination 1415

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

Essential Pharmaceuticals 1505

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

ETHICON/DePuy Synthes CMF 301

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

European Association for Cardio-Thoracic Surgery (EACTS) 420

Windsor, United Kingdom
EACTS is the largest European association devoted to the practice of cardiothoracic surgery. The main objective of the association is to advance education in the field of cardiothoracic surgery and to promote, for the public benefit, research into cardiovascular and thoracic physiology and therapy, and to correlate and disseminate the useful results thereof. Visit booth 420 for more information.

European Society of Thoracic Surgeons (ESTS) 422

Exeter, United Kingdom
ESTS is the largest international general thoracic surgery organization with more than 1,400 members from all continents. The society's mission is to improve quality in the specialty, from the clinical and surgical management of patients to education, training, and credentialing of thoracic surgeons worldwide.

Fehling Surgical 1027

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

General Cardiac Tech/Heart Hugger 535

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

Genesee BioMedical 827

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

Gore & Associates 1127

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

Hawaiian Moon 1122

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

Heart Valve Society (HVS) 1234

Beverly, MA
For the first time, a truly collaborative international valve society, comprised of

cardiologists, cardiac surgeons, and researchers, is coming together to create this new organization of unprecedented depth. The Heart Valve Society (HVS) website is www.HeartValveSociety.org.

HeartWare 519

Framingham, MA
HeartWare is dedicated to delivering safe, high-performing, transformative therapies that enable patients with heart failure to get back to life. The HVAD® Pump is designed to be implanted in the pericardial space, avoiding the more invasive surgical procedures required with older LVAD technologies. The HVAD Pump is commercially available around the world.

Hospital Corporation of America 329

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

ImaCor, Inc. 327

Garden City, NY
ImaCor develops advanced critical care solutions for hemodynamic assessment. hTEETM (hemodynamic Transesophageal echocardiogram (TEE) is the first and only technology to provide continuously available direct cardiac visualization. hTEE is enabled through the 72-hour ClariTEETM probe, a miniaturized and disposable TEE probe, and the ZuraTM Imaging Systems for episodic assessment.

International Society for Minimally Invasive Cardiothoracic Surgery (ISMICS) 412

Beverly, MA
ISMICS: Innovation, technologies, and techniques in cardiothoracic and cardiovascular/vascular surgery. 2015 ISMICS Annual Scientific Meeting, 3-6 June 2015, InterContinental Hotel, Berlin, Germany. www.ismics.org

Intuitive Surgical 1101

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

IsoRay Medical 729

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

JACE Medical 837

Warsaw, IN
JACE is a medical device development company pioneering a fully integrated resequencing technology and application for sternal resection and closure. The company innovates with an eye toward providing definitive benefits across the entire five-sided health care spectrum of patient,

physician, provider, payer, and regulator. Visit the JACE booth and see how the company thinks outside the paradox. www.JACEMED.com

JOMDD 1033

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

KaMedi Co. Ltd. 1510

Hua Hin, Thailand
SternaSafe is an active sternum support band.

Kapp Surgical 1032

Cleveland, OH
Kapp Surgical designs surgical instruments and implants, manufactures them, and sells them, as well as distributes domestically and internationally. Kapp's exclusive products are the Cosgrove Heart Retractor, Strip T's surgical organizer, and countless surgical devices, all FDA-approved with several pending approval.

Karl Storz 1226

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

KLS Martin 1421

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

Koros USA, Inc. 722

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

LifeNet Health 1426

Virginia Beach, VA
LifeNet Health helps save lives and restore health for thousands of patients each year. It is the world's most trusted provider of transplant solutions, from organ procurement

to new innovations in bioimplant technologies and cellular therapies—a leader in the field of regenerative medicine, while always honoring the donors and health care professionals who allow the healing process.

Lippincott Williams & Wilkins 1037

La Mesa, CA

LoupeCam 833

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

LSI Solutions 1427

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

MAQUET 633

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

Market Access Partners 311

Evergreen, CO
Market Access Partners provides market research consulting to the medical device and pharmaceutical industries. The company uses innovative, qualitative methodologies to research opinions of physicians, nurses, and patients. Market Access Partners offers a management-oriented approach to product development and marketing.

Mayo Clinic 312

Jacksonville, FL
Mayo Clinic has been recognized as the best hospital in the nation for 2014-2015 by U.S. News and World Report and one of the top 100 "Best Companies to Work For" by FORTUNE. Mayo Clinic is the largest integrated, not-for-profit medical group practice in the world working in a unique environment that brings together the best in patient care, groundbreaking research, and innovative medical education.

Continued on following page

Reminder: No Photos or Recordings

Please keep in mind that the use of cameras and recording devices is prohibited during scientific sessions at

the STS 51st Annual Meeting, unless used by authorized personnel. Thank you for your cooperation.

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Med Alliance Solutions 1220, 1221

St. Charles, IL

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

Medela 715

McHenry, IL

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

Medistim 721

Plymouth, MN

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

Medtronic 701

Minneapolis, MN

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

MedXpert North America 1433

Edmond, OK

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

Microsurgery Instruments, Inc. 302

Bellaire, TX

Microsurgery Instruments is one of the leading suppliers of surgical instruments and loupes. The company's instruments include titanium scissors, needle holders, and DeBakey forceps. Its Super-Cut scissors are the sharpest in the market, and its newly designed surgical loupes offer up to 130 mm field of view and up to 11x magnification.

Munson Healthcare 403

Traverse City, MI

As a regional health care system, Munson Healthcare provides direct access to over 700 physicians, representing 54 specialty services at eight health care facilities that have been

repeatedly recognized for excellence in quality, service, and patient care. Its 391-bed regional referral center is located in beautiful northern lower Michigan near Lake Michigan. Visit www.munsonhealthcare.org.

Myriad Genetic Laboratories, Inc. 417

Salt Lake City, UT

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

Nadia International 1411

Austin, TX

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

nContact 411

Morrisville, NC

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

NeoChord, Inc. 304

Eden Prairie, MN

NeoChord, a US-based medical device company, intends to transform mitral valve repair by providing minimally invasive technology that enables beating heart, sternal-sparing implantation of artificial chord tendinae.

On-X Life Technologies, Inc. 927

Austin, TX

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

Ornim 1417

Foxboro, MA

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

Otto Trading Inc. 1132

Santa Ana, CA

Oxford University Press 1035

Cary, NC

OUP publishes some of the most respected medical books and journals in the world, including the three journals of the European

Association for Cardio-Thoracic Surgery. Visit the booth to browse books and pick up journal sample copies.

Pemco Inc. 1514

Cleveland, OH

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

Pinnacle Biologics 321

Bannockburn, IL

Pinnacle Biologics, Inc. specializes in revitalizing health care therapies by promoting, developing, and managing innovative approaches to the commercialization of products with a focus on oncology and orphan diseases. PD T with Photofrin® is an effective therapy for select thoracic malignancies.

PneumRx, Inc. 1120

Mountain View, CA

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

QED Medical 1527, 1529

Lexington, KY

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

Quest Medical, Inc. 1126

Allen, TX

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

Regional Data Managers: STS National Database 1118

Ann Arbor, MI

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

RMD Global 1616

Las Vegas, NV

Rose Micro Solutions 932

West Seneca, NY

Rose Micro Solutions sells high-quality optical loupes and LED lights for less. The company's

loupes start at \$279. Rose Micro Solutions is a family business consisting of four brothers, who named the company after their mother Rose. Stop by booth 932, visit the company online at www.rosemicrosolutions.com, or call (716) 608-0009.

RTI Surgical 421

Alachua, FL

RTI Surgical is a leading global surgical implant company providing surgeons with safe biologic, metal, and synthetic implants. RTI's implants are used in sports medicine, general surgery, spine, orthopedic, trauma, and cardiothoracic procedures, and are distributed in nearly 50 countries. RTI is headquartered in Alachua, FL, and has four manufacturing facilities in the US and Europe.

Rultract 1516

Cleveland, OH

Rultract's surgical retractor provides gentle and uniform lift, allowing maximum exposure for IMA dissection, redo hearts, xiphoid entry, subxiphoid pericardial procedures, minimally invasive procedures (capable for use with Thoratrak), parasternal procedures, pediatric/ASD, t-incisions, transabdominal GEA midcab, Pectus, LVAD extraction, and TEMPLA procedures. www.rultract.net

Scanlan International 500

St. Paul, MN

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

Siemens Medical Solutions USA Inc. 310

Malvern, PA

Siemens Healthcare is one of the world's largest health care industry suppliers and the first full-service diagnostics company. The company is known for bringing together innovative medical technologies, health care information systems, management consulting, and support services to help customers achieve tangible, sustainable, clinical, and financial outcomes. www.usa.siemens.com/healthcare

Society of Thoracic Surgeons, The 1111

Chicago, IL

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

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

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

Spectrum Health 314
Grand Rapids, MI
Spectrum Health is a not-for-profit health system, based in West Michigan, offering a full continuum of care through the Hospital Group, which is comprised of 11 hospitals; 169 ambulatory/service sites; 1,150 physicians and advanced practice providers, including Spectrum Health Medical Group members; and Priority Health, a 590,000-member health plan. Visit spectrumhealth.org for more information.

Spiration, Inc. 1121
Redmond, WA
The Spiration® Valve System has a humanitarian device approval in the United States to control specific postoperative air leaks of the lung, and has CE mark approval for the treatment of diseased lung in emphysematous patients and for damaged lung resulting in air leaks by limiting air flow to selected areas.

St. Jude Medical 600
St. Paul, MN
St. Jude Medical is a global medical device manufacturer dedicated to transforming the treatment of some of the world's most expensive, epidemic diseases. The company does this by developing cost-effective medical technologies that save and improve lives of patients around the world. Headquartered in St. Paul, MN, St. Jude Medical has four major clinical focus areas that include cardiac rhythm management, atrial fibrillation, cardiovascular, and neuromodulation. Please visit sjm.com.

Stroke Prevention Systems, Z-Medical, Inc. 316
Inman, SC
The company is focused on developing devices for prevention of embolic stroke in cardiovascular procedures, such as TAVR, PCI, ablation, AVR, CABG, TMR, and TEVAR. It designed and clinically implemented the first noninvasive cerebral protection device (Stroke Prevention System, SPST™), activated "on demand" at the time of embolic insult. Several other cerebral protection devices are being developed.

STS Public Reporting 1117
Chicago, IL
STS is committed to transparency and the accurate reporting of cardiothoracic surgery outcomes. In 2015, STS will celebrate its fifth anniversary of public reporting. Visit booth 1117 to learn about the Society's adult cardiac, general thoracic, and congenital heart surgery

public reporting initiatives, as well as its ongoing collaboration with Consumer Reports.

SurgiTel/General Scientific Corp. 1600
Ann Arbor, MI
SurgiTel is the manufacturer of premium loupes and headlights sold around the world from its headquarters in Ann Arbor. Holding a variety of patients, SurgiTel is always on the forefront of vision and ergonomics.

SynCardia Systems, Inc. 1326
Tucson, AZ
The SynCardia temporary Total Artificial Heart (TAH-t) is the world's only FDA, Health Canada, and CE approved Total Artificial Heart. It is approved as a bridge to transplant for patients dying from end-stage biventricular failure. Visit the SynCardia booth for updates on the Freedom® portable driver, 50cc TAH-t, and destination therapy.

Terumo 913
Ann Arbor, MI
Vascutek, a Terumo company, will display Gelweave™ gelatin-sealed, woven, and branched vascular grafts. The Vascutek CE-marked Thoraflex™ Hybrid device will also be featured (not cleared for sale in the United States). Terumo will display the VirtuoSaph® Plus Endoscopic Vessel Harvesting System, Beating Heart and Surgical Stabilization products for cardiothoracic procedures, and Terumo® Perfusion Products.

Thompson Surgical 510
Traverse City, MI
Thompson Surgical has been a leader in exposure for over 50 years. Cardiovascular surgeons will benefit from the Thompson Surgical Bolling Retractor, which provides low profile, stable, uncompromised exposure of the heart structures. The company provides innovative, high-quality systems that deliver safe, versatile retraction.

Thoracic Surgery Foundation for Research and Education (TSFRE) 1216
Chicago, IL
TSFRE is the charitable arm of The Society of Thoracic Surgeons. The mission of TSFRE is to foster the development of surgeon scientists in cardiothoracic surgery; increasing knowledge and innovation to benefit patient care. The foundation represents cardiothoracic surgery in the United States and its research and education initiatives support the broad spectrum of cardiothoracic surgery.

Thoracic Surgery Residents Association 537
Chicago, IL
The Thoracic Surgery Residents Association (TSRA) represents the interests of all residents training in cardiothoracic surgery. TSRA provides resources and programming for CT surgery residents, including clinical books and apps, speakers, mixers, and traveling fellowship opportunities.

Thoramet Surgical 823
Rutherford, NJ
Thoramet Surgical Products sells the most complete line of VATS instruments available. Produced in the USA in their own facilities, they are the surgeon's choice. Visit to booth 823 to

see their unique versatility. Thoramet has the feel you want, the actuation you need, and the patterns you demand.

Thoratec Corporation 1020
Pleasanton, CA
Thoratec is the world leader in mechanical circulatory support with the broadest product portfolio to treat the full range of clinical needs for patients suffering from advanced heart failure. Thoratec's products include the HeartMate LVAS, Thoratec VAD, CentriMag, and PediMag/PediVAS.

Transonic 733
Ithaca, NY
You've carefully constructed several challenging anastomoses, and they all look good, but are they? Before you close your patient, take a few seconds and get precise blood measurements on each graft. Know if there is a problem now, before the patient lets you know later. Visit Transonic and see how its meters and flow probes can help you improve your outcomes.

VAD Consulting Group, The 401
Spokane, WA
Whether your VAD program is just starting out or you are an established center looking to increase financial and operational efficiencies, the VAD Consulting Group has the experience and expertise to help you in today's challenging environment.

Vikon Surgical 317
Birmingham, AL
Vikon® specializes in surgical headlights and devices that use proprietary technology and

patented designs. Vikon Kerrisons are easier to use and clean, and stay sharper longer. The company's LED technology offers a cool, clean light that optimizes color rendering. These innovations are part of Vikon's commitment to help you improve outcomes.

Vitalcor, Inc./Applied Fiberoptics 718
Westmont, IL
Vitalcor, Inc. is a supplier of medical devices used primarily in cardiothoracic surgery. Since 1975, Vitalcor has provided products that take input from teaching and practicing surgeons to make their practice easier. The company prides itself on offering quality products and providing exceptional customer service.

Vitalitec Geister 627
Plymouth, MA
Vitalitec Geister will be displaying all company products, highlighting the Enclose II Anastomosis Assist Device, Cygnet Flexible Clamps, Intrack Atraumatic Temporary Clamps and Inserts, and Geister ValveGate and ValveGate PRO line of MIS CV instrumentation.

Wexler 1509
Houston, TX
Wexler Surgical designs and manufactures titanium and stainless steel specialty surgical instruments and products for cardiovascular, thoracic, and microsurgery. Visit Wexler online at www.wexlersurgical.com.

Worldwide Design 323
Seattle, WA

The STS Meeting Bulletin

The Official Newspaper of the STS 51st Annual Meeting

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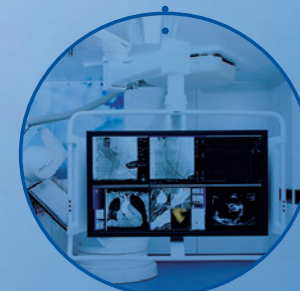
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Evolutionary Experience



Make your ideal Hybrid OR a reality

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Maquet, dedicated to healthcare innovation for more than 175 years, partners with hospitals like yours to produce Hybrid OR solutions that enhance workflows and help promote optimal patient treatment.

Our experienced team collaborates with your key stakeholders to discuss, design, deliver, and service a flexible operating suite that enables your staff to perform diagnostic and interventional procedures as well as open surgery—all in a single, efficient work environment.

By analyzing and optimizing circulating pathways, collision points, ergonomics and workflow, Maquet Hybrid ORs help promote maximum efficiencies within the surgical suite so that your investment will continue to be an asset today, and adapt to your future.

If your goal is an integrated solution that easily adapts to address the needs of a truly multi-functional OR, contact Maquet today.

MAQUET USA will donate \$250 to Make-A-Wish® for any single purchase order of \$50,000 or more (before tax, shipping and install) received between March 1, 2014 and February 28, 2015, with a minimum guaranteed contribution of \$50,000, up to a maximum of \$150,000. For more information about Make-A-Wish visit wish.org.

At STS 2015, Visit Maquet Booth #633

www.maquetusa.com