Welcome to STS 2019

I am thrilled that you’ve joined us in San Diego for the Society’s 55th Annual Meeting, and I hope you are ready for a meeting that is packed with interactive learning, thought-provoking lectures, hands-on sessions, an abundance of networking opportunities, and a chance to view the latest products and services in the specialty.

We have reconfigured the traditional meeting schedule to provide you with all the experiences that you’ve come to expect, while also decreasing the days you’re away from the office and your patients. The meeting will kick off on Sunday morning with STS University, followed by an opening plenary session featuring the J. Maxwell Chamberlain Memorial Papers and the Thomas B. Ferguson Lecture. I’ll give my Presidential Address on Monday morning, and Tuesday’s schedule will include the C. Walton Lillehei Lecture.

**KEYNOTE LECTURES**

I am very pleased to welcome two outstanding keynote speakers this year. For the Ferguson Lecture, Laurie H. Glimcher, MD, President and CEO of the Dana-Farber Cancer Institute and President-elect of the American Association for the Advancement of Science, will discuss advances in cancer immunotherapy. The Lillehei lecturer will be Eric Topol, MD, Director and Founder of the Scripps Research Translational Institute in La Jolla, California. His talk, “High-Performance Medicine: The Convergence of Artificial Intelligence and Health Care,” will review the progress made toward AI integration into health care, where things are heading, and potential liabilities and obstacles.

**INTERNATIONAL EXPERTISE**

Over the next few days, we will be spending a lot of time with our cardiothoracic surgery colleagues from across the globe, sharing a unique camaraderie and discussing our experiences. In addition, the Society has planned a number of exciting joint sessions with international medical societies that I hope you will find intriguing and rewarding.

A Sunday session by STS, the Canadian Association of Thoracic Surgeons, and the Canadian Society of Cardiac Surgeons will review trends in the utilization of minimally invasive surgical techniques for anatomic pulmonary resection, including both video-assisted thoracoscopic and robotic surgery.

On Monday, the Society will team up with the European Society of Cardiothoracic Surgery (EACTS) to discuss advances in cancer imaging.

**Should Genome Editing Be Used on Embryos to Prevent Disease?**

Editing genes in human embryos, even for research, has always been controversial. Although the scientific community has grappled over the ethics of gene modification, the technology for it has exploded with the invention of CRISPR, a genetic engineering tool that makes gene editing easier and more precise.

This advance in technology has placed genome editing on the threshold of clinical use, but there still are many unsettled questions as to its proper utilization and the underlying ethics. For example, should it be used to manipulate DNA in embryos and replace mutated genes that cause genetic diseases?

This is the question that experts will address during the Ethics Debate on Sunday afternoon, when they consider a patient who has cystic fibrosis and wants to have children who are free of the disease.

“This case focuses on cystic fibrosis, but I think that the discussion will go beyond just the specific disease component,” said Thomas A. D’Amico, MD, of Duke University Medical Center in Durham, NC, who will moderate the debate. “The technology of gene editing, with CRISPR becoming available, revolutionizes the management of diseases that have many components, several of which have relevancy to cardiothoracic surgeons.”

Kyle Brothers, MD, of the University of Louisville in Kentucky, will argue that cystic fibrosis genes should be replaced with normal genes in affected embryos, while Fyodor Urnov, PhD, of the Altius Institute for Biomedical Sciences in Seattle, will argue that cystic fibrosis genes should not be manipulated.

“Often, the Ethics Debate participants are cardiothoracic surgeons, but in this case, we were lucky enough to draw in experts from outside the field who are outstanding scientists and have strong track records on this topic,” said Dr. D’Amico.

The relevant benefits of gene editing include the ability to edit somatic cell mutations, so that if you had a specific disease with a specific mutation, it could potentially be changed with this technology. The debate will revolve around the ethics of how far to go and whether to perform germline editing, as well.
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Join us at Booth 511
Unconscious Biases Negatively Impact Relationships With Colleagues, Patients

Everyone has biases. But with increased awareness, you can “train” yourself out of bias and make informed decisions based on actual data. A session organized by Women in Thoracic Surgery (WTS) will provide attendees with the tools they need to do just that.

“Our biases can affect the recruitment and retention of surgeons in our field, our relationships with our colleagues, and our relationships with our patients—typically in a negative fashion,” said DuyKhanh P. Ceppa, MD, from the Indiana University School of Medicine in Indianapolis, who helped plan the session. “We must foster a more inclusive environment in order to thrive.”

She explained that biases in cardiothoracic surgery tend to impact women and minorities in particular.

“How many times have we been turned down by a patient for a more senior, male partner? How many times have we lost future referrals due to a known complication from surgery when a male colleague would not have suffered the same backlash?” asked Dr. Ceppa, adding that the published literature has noted similar trends as a result of biases based on race and age.

She said that particularly concerning is the fact that although medical school classes have consisted of about 50% women for the last 15-20 years, fewer than 10% of board-certified cardiothoracic surgeons are women. Last spring, STS and WTS collaborated on a survey assessing the prevalence of sexual harassment and gender bias in the specialty; more than 800 cardiothoracic surgeons responded, and the survey results will be presented during the session.

“We need more women, as well as men who are cognizant of our field’s implicit biases, in leadership roles to fully address and correct this issue.”

DUYKHANH P. CEPPA, MD

STS Staff Welcomes You to San Diego

On behalf of the Society’s staff, I join STS President Keith Naunheim in welcoming you to The Society of Thoracic Surgeons 55th Annual Meeting and Exhibition in San Diego, California. As in the past, the Annual Meeting will provide you with a wide range of educational, networking, and social offerings.

Because there is so much to experience between Saturday and Tuesday, the STS Meeting Bulletin will help you keep track of what’s happening and provide up-to-date information about new sessions, meeting room locations, exhibitor descriptions, and much more.

And please watch for the Monday and Tuesday editions of the Bulletin; they will be placed in bins throughout the convention center. Check the front page left-hand column in each issue for a quick summary and update of the day’s activities.

The Bulletin also provides a handy reference to the Exhibit Hall, which is an important component of the meeting experience. The Exhibit Hall is a great place to learn about new and improved technology and products, and it offers the perfect opportunity to see and meet with colleagues and friends. Surveys from past meetings show that the majority of attendees make a point of visiting with the exhibitors at least three times over the course of the meeting. The STS Exhibit Hall opens its doors at 4:30 p.m. on Sunday, with a reception that runs through 6:30 p.m. Snacks and refreshments will be served throughout the Exhibit Hall, and we will be featuring both the Jeopardy Competition and the Poster Presentations in the Hall—something for everybody.

While you’re there, I hope you will stop by the STS booth (#601). Staff members will be there, eager to talk with you about—and provide updates on—all things STS. Ask about the latest updates for the STS National Database, our public reporting initiatives, exciting developments from the STS Research Center, upcoming live educational programs on robotic surgery and thoracic endovascular aortic repair, and several recently released e-learning modules.

You will also want to take a moment and talk with the STS Government Relations staff, who can update you on the Society’s many efforts on Capitol Hill. Fromcoding and reimbursement issues to the future of health care reform legislation in the new Congress, STS continues to champion the specialty in Washington. Stop by and learn more. There’s a lot going on—and you’ll want to understand the implications for your practice.

If you are not already an STS member, please stop by the STS booth and learn about the many membership benefits we have to offer.
Learn How Surgeons Can Succeed in a Changing Health Care Landscape

Despite many years of clinical training, most cardiothoracic surgeons aren’t provided with sufficient education in a key area of career development—optimizing their value to their organizations. Speakers at Sunday’s Practice Management Summit will seek to close that knowledge gap, helping attendees understand their value and obtain appropriate compensation.

“We certainly don’t get this education in our training, so we’re ill-prepared when starting our careers,” said Frank L. Fazzalari, MD, MBA, Chair of the Workforce on Practice Management. “The landscape is evolving very quickly, so cardiothoracic surgeons must adapt.”

A major change in the employment environment over the last few years has been the increasing number of surgeons employed by hospitals rather than private practices. During the Summit, attendees will learn how to weigh factors in their local areas when making decisions regarding their employment arrangements.

The US government also has made a number of recent changes that impact reimbursement for cardiothoracic surgical procedures. The Summit will provide an overview of STS efforts to advocate for regulations and programs that fairly compensate surgeons for their work.

EXPANDING ROLES

With a greater push for health care quality over quantity, how do surgeons continue demonstrating their value to the hospital administration?

“The work Relative Value Unit model does not value the presence of a cardiothoracic surgeon on a hospital staff,” said Workforce member Paul S. Levy, MD, MBA, of NEA Baptist Memorial Hospital in Jonesboro, AR. “Compensational value has to be shown in other ways.”

One option is to take a more active role in hospital administration—a path that is especially suitable for surgeons, given their leadership in the operating room. Of course, that means knowing how to negotiate a contract with suitable compensation for these efforts.

“Surgeons may not have a lot of experience with contract negotiation,” Dr. Fazzalari said. “It can be difficult to know whether you should accept what you’re offered or walk away.”

Attendees will hear from a health care attorney on the potential landmines to avoid and important components to address.

ANSWERING THE TOUGH QUESTIONS

An important component to this Summit is giving surgeons an opportunity to ask the questions that they may not feel comfortable asking in the workplace, including questions about salary.

“We’ll provide hard numbers regarding what you can expect in compensation,” said Dr. Levy. “We’ll also share what employers look for when recruiting. The Summit will help you best position yourself for success.”

Access the STS National Database for Research

The STS National Database is a valuable tool for quality improvement, and the Society offers investigators various options for using data from the Database for research projects.

Database participants can submit novel, well-conceived, and hypothesis-driven proposals to the STS Research Center through its Access & Publications Research Program. Submissions are accepted twice a year for the Adult Cardiac Surgery Database, General Thoracic Surgery Database, Congenital Heart Surgery Database, and Internacs Database. Proposals are approved on a competitive basis for STS-funded analyses performed at a designated STS National Database analytic center.

Another option is the STS Participant User File (PUF) Research Program, which was designed primarily as an affordable option for investigators to pose research questions, quickly obtain quality national-scale de-identified data, analyze these data themselves given appropriate biosurveillance resources, receive feedback, and develop their efforts into abstracts and manuscripts. During a session on Sunday afternoon, speakers will explain the differences between the programs, cover the ins and outs of submitting data requests, and offer tips on developing a hypothesis, specific aims, and a research plan. Attendees also will hear an investigator’s experience with the PUF Program.

This is a must-attend session for anyone wishing to fully understand and utilize the various research options based on data available in the STS National Database. Residents are especially encouraged to learn about the possibilities as they embark upon their research careers.

Ferguson Lecturer to Discuss Cancer Immunotherapy

The first of the exciting keynote lectures at the STS Annual Meeting—the Thomas B. Ferguson Lecture on Sunday afternoon—will feature Laurie H. Glimcher, MD, who has made seminal discoveries in cancer immunobiology research, particularly in the fields of transcriptional regulation, lymphocyte differentiation, immunology, and osteobiology. She is President and CEO of the Dana-Farber Cancer Institute, Principal Investigator and Director of the Dana-Farber/Harvard Cancer Center in Boston, and the Richard and Susan Smith Professor of Medicine at Harvard Medical School. Her address is titled “Cancer Immunotherapy: The End of the Beginning.”

Dr. Glimcher will discuss the history and current state of cancer therapy and present active areas of innovation such as cancer genomics, immunotherapeutics, epigenetics, and approaches to combination therapy. She also will provide her vision for the long-term future of cancer treatment and prevention, including efforts for earlier detection of minimal residual disease and relapse by measuring circulating tumor DNA and using machine learning/artificial intelligence.

The Ferguson lecture recognizes Thomas B. Ferguson, MD, a former editor of The Annals of Thoracic Surgery and one of the few individuals to serve as President of both STS and the American Association for Thoracic Surgery.

Ferguson B. Ferguson Lecture: Cancer Immunotherapy: The End of the Beginning

Sunday 3:30 p.m. – 4:30 p.m.
Ballroom 20
VATS, Robotics in Greater Demand

Video-assisted thoracoscopic surgery (VATS) is the most common approach to thoracic surgery in specialized centers, but robotics is rapidly being adopted.

“Robotic thoracic procedures are exploding in popularity, representing the largest growing category within robotic surgery in the United States,” said Bernard J. Park, MD, of Memorial Sloan Kettering Cancer Center in New York.

Trends in the use of minimally invasive surgical (MIS) techniques such as VATS and robotics for thoracic surgery will be reviewed Sunday during a collaborative session organized by STS, the Canadian Association of Thoracic Surgeons, and the Canadian Society of Cardiac Surgeons, with a focus on the benefits over open approaches and variation between robotic and non-robotic platforms.

“There is a growing interest by both patients and practitioners to offer MIS approaches, when appropriate, for a wide range of general thoracic procedures, as these strategies can reduce surgical trauma and enhance recovery while maintaining quality outcomes,” said Dr. Park, who is co-moderating the session.

“It is the duty of thoracic surgical leadership worldwide to develop the appropriate data-driven approaches.”

The session will review the use of MIS approaches for anatomic lung resection, including utilization across different types of procedures (segmentectomy, lobectomy, and pneumonectomy).

The session also will explore the challenges that come with adopting this type of technology, including the additional cost for robotic surgery, said co-moderator Kazuhiro Yasufuku, MD, PhD, of the University of Toronto.

“There’s not only the cost of purchasing the robot, but also the instruments and the maintenance fee.” Dr. Yasufuku said. “The other issue may be hesitance for surgeons to adopt this new technology. The learning curve is steep compared to VATS.”

Dr. Park added that availability remains a challenge, with many practitioners either working in hospitals that lack a system or where there isn’t availability for thoracic surgery. He also pointed to credentialing, training, and oversight (proctoring) as other barriers to adopting robotics.

But the benefits of robotics and VATS are worth the effort, according to Dr. Yasufuku, who said that both methods are less invasive for patients, resulting in less pain. Both offer shorter hospital stays, fewer complications, and less bleeding with the same oncological outcomes.

“Cardiothoracic surgeons need to be aware of what is coming and be ready for adopting these technologies into their practice,” Dr. Yasufuku said.

Improve Your Chances of Publication

The peer-review process is a critical step in the production of high-quality scientific journals, such as The Annals of Thoracic Surgery. An effective peer-review system facilitates informed clinical practice changes that will enhance value-based care for patients and iteratively educate the entire field of cardiothoracic surgery.

Reviewers and authors both face challenges, however. Reviewer challenges include finding key elements in a manuscript and knowing what to consider in each manuscript component, while authors sometimes struggle with responding to reviewer comments and preparing revisions in a manner that will improve the chances of publication.

In a session led by Annals Editor G. Alexander Patterson, MD, FRCS(C), experienced reviewers and authors will provide insights on why surgeons should care about the peer-review process, key elements of scientific manuscripts, basic study design and statistical methods, and making revisions.

Although the session is geared toward junior faculty and early career researchers, physicians and researchers at any stage in their careers will glean useful perspectives.

CT Surgery Residents Prepare for Jeopardy Title

Cardiothoracic surgery residents from Europe and North America will face off Sunday evening in the ultimate cognitive challenge—the STS Cardiothoracic Surgery Jeopardy Championship. Qualifying competitions were held at the European Association for Cardio-Thoracic Surgery Annual Meeting in October 2018 and the Southern Thoracic Surgical Association Annual Meeting in November 2018.

European winners Pedro Magro, MD and Paulo Oliveira, MD, from Hospital Santa Cruz in Lisbon, Portugal, will compete against North American winners Bartholomew Simon, MD and Amber Melvin, MD, from the University of Rochester in New York, on Sunday from 4:45 p.m. to 5:30 p.m. in the Exhibit Hall Learning Lab Theater.

Explore an Iconic Destination at the President’s Reception

Join your colleagues for the STS President’s Reception at the celebrated Hotel del Coronado on Sunday evening. Set on picturesque Coronado Island, just off the San Diego coastline, this National Historic Landmark hotel was built in 1888 and has been a popular destination for visiting celebrities, presidents, and dignitaries.

The reception will be held in the Crown Room, an elegant space with a 33-foot domed ceiling made from Oregon sugar pine and crown-shaped chandeliers designed by L. Frank Baum, author of The Wonderful Wizard of Oz. Several notable events have been held in the Crown Room, including a celebration for Charles Lindbergh following his solo transatlantic flight. The resort also served as the backdrop for movies, including “Some Like It Hot,” starring Marilyn Monroe, Tony Curtis, and Jack Lemmon.

Don’t miss this opportunity to enjoy dinner, drinks, and conversation in a historic setting. Check at Registration for availability; tickets are $125.
Chamberlain Papers Will Be Presented at Sunday Plenary

Transcatheter aortic valve replacement (TAVR) outcomes, the influence of regionalization on outcomes after pulmonary resection, and long-term survival differences between arterial and atrial switch procedures are the focuses of this year’s prestigious J. Maxwell Chamberlain Memorial Papers. These papers will be presented during the new Sunday opening plenary session.

SAVR VOLUME MAY PREDICT TAVR OUTCOMES
Hospital surgical aortic valve replacement (SAVR) volume alone appears to be an independent predictor of mid-term TAVR outcomes—specifically, the lower a hospital’s SAVR volume, the higher the mortality after TAVR.

“We found that unadjusted and adjusted mortality at 30 days and 90 days after TAVR were much higher in low-volume SAVR centers versus high-volume SAVR centers,” said Sameer A. Hirji, MD, of Brigham and Women’s Hospital in Boston. Dr. Hirji will present the Chamberlain Paper for Adult Cardiac Surgery. Low-volume was defined as centers performing 10-99 SAVR cases a year; high-volume was defined as centers performing at least 200 SAVR cases a year.

There has been a significant paradigm shift in the management of patients with symptomatic aortic stenosis and, correspondingly, a remarkable growth in the utilization of TAVR technologies. This is in part due to accumulating operator experience, innovations in valve design and technology, and improvements in patient selection, Dr. Hirji said.

As a result, the Centers for Medicare & Medicaid Services (CMS) is re-examining its national coverage determination (NCD) for TAVR, which was released in 2012. This past July, CMS was among the four medical specialty societies that provided information on minimum procedure volume requirements during a Medicare Evidence Development and Coverage Advisory Committee meeting. CMS is expected to unveil its updated TAVR NCD later this year.

“Our study provides useful data that will help inform physicians, patients, and CMS policymakers as we all seek to further improve patient mortality and morbidity following TAVR,” added Tsuyoshi Kaneko, MD, also of Brigham and Women’s Hospital, who was senior principal investigator of the study.

THORACIC SURGERY REGIONALIZATION IMPROVES OUTCOMES
Not only is it possible to boost regionalization in US health care systems, but doing so can make a measurable, positive difference in patient outcomes following major pulmonary resection, according to the Chamberlain Paper for General Thoracic Surgery.

The current literature on the volume-outcome relationship in major pulmonary resection for lung cancer is mixed and inconclusive. Additionally, many of the existing studies are based on data following centralization within national, single-payer systems. According to lead author Sora Ely, MD, of the University of California San Francisco East Bay Surgery Program in Oakland.

“We needed to examine whether similar changes to increase regionalization were possible in US systems and whether the improvement in results could be reproduced,” Dr. Ely said.

The researchers found that regionalization:
- More than tripled annual site volume and nearly doubled surgeon volume
- Dramatically increased video-assisted thoracoscopic surgery (VATS)’s utilization and decreased intensive care unit utilization
- Improved outcomes, with significant reductions in length of stay and complication rates
- While the average VATS lobectomy operative time significantly decreased, average open lobectomy operative time significantly increased.

“Although this finding initially surprised us, we believe that these changes together represent a maximization of safe VATS utilization, such that only the most difficult cases were performed using the open approach,” said Dr. Ely. “Our study’s regionalization process may be used as a model for implementation in other health care networks.”

ARTERIAL SWITCH TRUMPS ATRIAL SWITCH FOR LONG-TERM SURVIVAL
Patients with transposition of the great arteries (TGA) who underwent either Mustard or Senning atrial switch repairs have a higher risk of premature death after 30 years than TGA patients treated with the Jatene arterial switch procedure.

Dr. Ely said.

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SAVING CHEMISTRY THROUGH IMPROVED PATIENT MATCHING
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STANDARDIZATION OF TAVR PROCEDURES
Today, the Jatene arterial switch procedure is the preferred surgery for TGA, but many adults who were treated with one of the atrial switch procedures are still alive.

“In addition to analyzing the long-term survival of these patients, we assessed patients’ perceptions of their own functional health status—which was similar across all domains.”

said lead author Paul J. Devlin, MD, of The Hospital for Sick Children in Toronto, Canada. To support important longitudinal studies such as this one, Dr. Devlin encouraged surgeons and cardiologists to follow-up with TGA-repaired patients and ensure that they are periodically meeting with an adult congenital heart disease specialist.

“It is important to closely monitor patients who have undergone one of the atrial switch procedures and reassess them for any changes in health status,” said Dr. Devlin. “Increasing surveillance of adults who have undergone TGA repair, especially the atrial switch patients, will ensure that they receive the care necessary to help alleviate their risk for premature death long after their initial repair.”

The Chamberlain Papers are considered by the Workforce on Annual Meeting Program Task Force to be among the best scientific abstracts submitted for the meeting. They honor the scientific contributions of Dr. Chamberlain, a renowned cardiothoracic surgeon who chaired the steering committee tasked with creating The Society of Thoracic Surgeons.

S. Hirji, MD

Paul J. Devlin, MD

S. Hirji, MD

Paul J. Devlin, MD

J. Maxwell Chamberlain Memorial Papers

Sunday
2:30 p.m. – 3:30 p.m.
Ballroom 20
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**Aboimi, Inc.**

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**Acute Innovations**

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**Admedus**

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**AI Care LLC**

302

Playa del Rey, CA

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**All in Store LLC**

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Las Vegas, NV

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**American Association for Thoracic Surgery**

647

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 internationally recognized professional organization of more than 1325 of the world’s foremost cardiothoracic surgeons. www.aats.org

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**AngioDynamics**

1142

Lima, NY

A leading provider of innovative, minimally invasive medical devices used by professional healthcare providers for vascular access, surgery, peripheral vascular disease and oncology.

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**Army Physician Outreach Team**

1315

Culver City, CA

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**Astute Medical**

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San Diego, CA

Astute Medical, manufacturer of the NephroCheck® test®, is dedicated to improving the diagnosis of high-risk medical conditions and diseases through the identification and validation of protein biomarkers to serve as the basis for novel diagnostic tests. Our focus is community and hospital-acquired acute conditions that require rapid diagnosis/risk assessment such as acute kidney injury and sepsis.

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**Atlas Medical USA**

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Atlas Medical is pleased to introduce the latest in cardiac insulation technology. The TEMED Gas Diffuser requires significantly less CO2 to de-air the cardiac cavity. Reduced bypass times and improved outcomes associated with CO2 diffusers can now be achieved without the increased risk of patient acidosis.

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**AtriCure, Inc.**

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**Auris Health**

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Redwood City, CA

With the Monarch™ Platform, Auris™ offers physicians revolutionary robotic endoscopic technology. The Monarch Platform is designed to enable physicians to diagnose, and eventually treat hard-to-reach lung nodules with greater precision than ever before. It is designed to be used in hospital operating rooms, in the home, and in the office.

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**B&W, Inc.**

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B&W is a worldwide technological leader in the innovation and development of visual and imaging systems. Experience the foremost innovations in bright, portable OR Quality LED headlights, Heart START™ LED light source - unmatched intensity illumination for headlights and imaging systems, and state-of-the-art Pharo HD™ COXIAL Headlight/Video Imaging System.

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**Biomed Simulation, Inc.**

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Biomed Simulation, Inc. supplies PATIENT SIMULATORS for surgical and critical care applications. Biomed’s flagship simulator, “Califa”, 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.

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**Bion’up USA, Inc.**

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Founded in 2005, Bion’up, a specialist in collagen-based absorbable medical devices for biosurgery, is developing a new generation hemostatic product composed of patient-protected biopolymers. With broad expertise in tissue engineering, Bion’up is creating innovative and clinically proven products that are used in many surgical specialties such as cardiothoracic and vascular surgeries. Bion’up is committed to the design, development, and delivery of novel, high-performing solutions that make life easier for surgeons and better for patients.

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**BioStar Scientific & Engineering**

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Austin, TX

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**Boston Medical Products, Inc.**

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Shrewsbury, MA

As the exclusive distributor for NOVATECH® in the US, Boston Medical Products offers an extensive range of TRACHEOBRONXANE™ 2000™ steerable tracheostomy tubes and most recently, Sterтель™ Sterile Talc.

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**Boston Scientific**

940

Minneapolis, MN

Boston Scientific transforms lives through innovative solutions that improve the quality of life for patients around the world. As a global medical technology leader for 35 years, we advance science for life by providing a broad range of performance solutions that address unmet patient needs and reduce the cost of health care.

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**Cardio Renal Society of America**

1202

Phoenix, AZ

Centese

1319

Omaha, NE

Center is the producer of Thoraguard™. A new surgical drainage system developed to address the needs of cardiothoracic surgeons and their patients.

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**CHF Solutions**

1100

Eden Prairie, MN

CHF Solutions is focused on improving the quality of life for patients suffering from heart failure and related fluid overload conditions requiring commercial expansion of The Aquadex FlexFlow® System. The Aquadex FlexFlow System is safe, effective, and clinically proven to remove excess sodium and fluid for patients who have failed diuretic therapy.

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**Chinese Medical Association**

840

Beijing, China

The Chinese Medical Association (CMA) is a nonprofit national academic organization in China. It is an important social force in the development of medical science and technology and a linkage between the government and the medical professionals.

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**ClearFlow**

1332

Anahiem, CA

ClearFlow’s Mission – Support Best Practices and new Guideline that prohibit chest tube occlusions. ClearFlow’s PleuraFlow ACT System is the only 510k cleared device indicated for the removal of retained blood and the proactive maintenance of chest tube patency after cardiac surgery resulting in improved patient outcomes and lower healthcare costs.

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**ConMed**

1435

Greenwood Village, CO

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**ConnectMe Solutions**

438

Las Vegas, NV

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**CorMatrix**

939

Roswell, GA

CorMatrix Cardiovascular, Inc. is a cardiovascular/regenerative medical device company. We are focused on regenerative patient solutions, addressing clinical challenges in the heart failure and structural heart/cardiac valve markets.

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**CryoLife**

925

Kennesaw, GA

CryoLife is a leader in the manufacturing and distribution of medical devices focused on aortic; devices included implantable tissue, mechanical heart valves, surgical adhesives, and a comprehensive portfolio of customized surgical and endovascular stents and catheters. CryoLife markets products in over 90 countries. For a complete product listing visit: www.cryolife.com.

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**CT Assist**

604

Philippi, WV

CT Assist is a health care staffing agency for cardiothoracic surgeons, cardiothoracic surgery advanced practitioners, perfusionists and nurses that deliver care in the CVOR, ICU, and floor. CT Assist provides workforce solutions including nursing and locum tenens. We are a nationwide provider over 200 cardiothoracic practitioners.

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**CTSnet**

600

Chicago, IL

www.ctsnet.org), headquartered in Chicago, Illinois, USA, is the leading international organization related to cardiothoracic surgery, as well as the major hub of the international online community of cardiothoracic surgeons and allied professionals. CTSnet’s mission is to “connect the global cardiothoracic community.”

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**CV Staff Solutions**

831

Colorado Springs, CO

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**Designs for Vision**

900

Bohemia, NY

Just See™ with Designs for Vision’s lightweight custom-made surgical Telescopes - available with Nikon® frames. See It Even Better™ with the L.E.D. Daylight® or Twin Beam®, L.E.D. Daylight® providing the brightest and safest un-tethered illumination. Introducing the L.E.D. Daylight® Nano Cam HD document procedure and HD video from your prospective.

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**EBM**

541

Tokyo, Japan

Biomedical spin-out venture company from JST, EBM provides original beating heart simulator and quantitative assessment system for OPCAB and vascular anastomosis world-wide. EBM assessment is based on rapid CFD technology and validated silicone vascular and airway models.

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**EchoPixel**

328

Institute Grants, PA

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**ClearFlow’s Mission – Support Best Practices and new Guidelines that promote chest tube occlusions. ClearFlow’s PleuraFlow ACT System is the only 510k cleared device indicated for the removal of retained blood and the proactive maintenance of chest tube patency after cardiac surgery resulting in improved patient outcomes and lower healthcare costs.**
Edwards Lifesciences, Inc. is a leader in patient-focused medical innovations for structural heart disease. Driven by a passion to help patients, the company collaborates with the world’s leading cardiac centers to address unmet healthcare needs. For more information, visit www.Edwards.com or @EdwardsLifsci.

Elsevier
Philadelphia, PA
Elsevier is the proud publisher of The Annals of Thoracic Surgery. As the world’s premier provider of information solutions that enhance the performance of science, health, and technology professionals. Elsevier empowers better decision making and the delivery of better care. www.elsevier.com

Essential
Durham, NC
Essential Pharmaceuticals, LLC is a specialty pharmaceutical company devoted to the development and sales of pharmaceutical products including Custodiol® HTK organ preservation solution. Originally developed for cardiac surgery, Custodiol® HTK offers advantages over currently available heart & abdominal transplant. Histidine acts as a highly effective buffer within the solution.

ETIOMIET, Inc.
Boston, MA
ETIOMIET’s BNA cleaved predictive analytics software helps clinicians make informed critical care decisions. The patient monitoring software transforms overwhelming data into actionable information for improved care quality and decreased cost. A recent multi-center study linked its use with a 25% decrease in LOS. Please stop by booth #872.

European Association for Cardio-Thoracic Surgery
Windsor, United Kingdom
EACTS is the largest European Association devoted to the practice of Cardio-thoracic 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.

European Society of Thoracic Surgeons
Wexford, United Kingdom
The largest international general thoracic surgery organization with over 1600 members from 56 countries. The society’s mission is to improve quality in the specialty, from clinical and surgical management of patients to education, training, and credentialing of thoracic surgeons worldwide. 27th European Conference on General Thoracic Surgery, 9 – 12 June 2019, Dublin, Ireland. www.essts.org

Evahet, Inc.
Houston, TX
Evahet Inc. is a medical device company based in the Houston Texas Medical Center that is bringing the Left Ventricular Assist System known as EVAHEART® through clinical trials, regulatory approval, and eventual commercial distribution to treat severe heart failure in patients. Under an FDA IDE, a clinical trial for a Bridge-to-Transplant induction is currently ongoing in the US.

Excell
Lodi, CA
Excell

Fehling Surgical Instruments
Acworth, GA
Fehling Surgical Instruments, Inc. is the leader in fine surgical instruments that has focused on Cardiovascular Surgery for over 30 years. We feature Minimally Invasive Valve Sets as well as New Renner designs for unmatched Attrament Closure of the Left Attrament. Our conformal instruments specialize in Cardiovascular procedures (Needleholders, Forceps, Clamps and MICS).

General Thoracic Surgical Club
Minneapolis, MN
Founded in 1988, the General Thoracic Surgical Club (GTSC) is a not-for-profit organization representing more than 325 general thoracic surgeons worldwide who are dedicated to enhancing the best possible outcomes for surgical procedures of the lung, mediastinum, esophagus, and diaphragm through education and research, and clinical experience.

Genesc BioMedical
Denver, CO
Genesc BioMedical, Inc. provides unique devices for cardiac surgery including anuloplasty bands/rings for mitral and tricuspid repair, stent/thoracic valve retrainers, instruments for MICS aortic, TAVI and robotic surgeons as well as coronary graft markers and myocardial needles. Genesc BioMedical, Inc. Denver, CO USA www.genescbiomedical.com

Getinge
Wayne, NJ
Getinge is a leading global provider of innovative solutions for operating rooms, intensive-care units, hospital wards, sterilization departments and support for companies in the health sector. Based on first-hand experience and close partnerships, Getinge offers innovative systems and solutions that improve every-day life for people, today and tomorrow.

Gore & Associates
Flagstaff, AZ
Gore Medical Products Division engineers device that treat a range of cardiovascular and other health conditions. With more than 40 million medical devices implanted over the course of more than 40 years, Gore builds on its legacy of improving patient outcomes through research, education and quality initiatives. Gore is joined in service with clinicians to improve lives.

Hakensack Meridian Health
Wall, NJ
Hakensack Meridian Health is a leading not-for-profit health-care network in New Jersey offering a complete range of medical services, innovative research, and life-enhancing care. We are the nation’s model for changing and simplifying health care delivery through partnerships with innovative companies and focus on quality and safety.

Heart Healthcare
Fort Lauderdale, FL
Hayes Healthcare is a healthcare staffing agency committed to working with and recruiting top physicians, advanced practitioners, and hospitals. Our dedication to service and laser-focused design to detail routinely create positive match outcomes.

HCA
Brentwood, TN
HCA owns and operates over 170 hospitals across the United States, which makes us one of the nation’s leading providers of healthcare services. We believe exceptional patient outcomes only come through a dedicated community of care, placing our physicians at the forefront.

Heart Hospital Baylor Plano, The
Plano, TX
The Heart Hospital Baylor Plano (THBP) is a cardiovascular specialty hospital in North Texas that opened in 2007. Over the past 10 years, our quality outcomes and guest satisfaction scores have garnered recognition as an American Heart Association top 100 Best Hospitals for Cardiac Care and accolades from international giants in the healthcare field via TheHeartHospitalBaylor.com to learn more.

Heart Valve Society
Beverly, MA
Heart Valve Society (HVS) “The Heart Team In Action” Save the day for HVS 2019 and join over 400 medial professional and 80 plus exhibitors on Stand 1. See us on Twitter @HVS2019 in Stips, Spain! Whether you are a cardiacologist, surgeon, researcher or another member of the crucial valve disease treatment team the HVS welcomes you to become a part of something very unique. Membership is available online.

Hospital Information Services for Jehovah’s Witnesses (United States)
Walkill, NY
Hospital Information Services for Jehovah’s Witnesses - United States is part of an international network that includes 1700 Hospital Liaison Committees in 110 countries. They are made up of community-based people who work closely with physicians and hospital personnel to present and share information on nonblood medical management of Jehovah’s Witness patients.

Huntsville Hospital Health System
Huntsville, AL
Heart Center at Huntsville Hospital has an Opening for a Thoracic Surgeon! There are currently 6 cardiovascular surgeons in our group and we are seeking a Thoracic Surgeon to join the thoracic surgery volume of a retiring surgeon. We currently perform over 850 cardiac surgical cases and approximately 50 thoracic surgical cases each year. Contact Suzanne.lecroix@hhs.org or 256-265-9639

International Society for Minimally Invasive Cardiothoracic Surgery
Beverly, MA
Interpace Diagnostics is a public molecular diagnostics company providing specialty molecular tests focused primarily in the field of Esophageal, Pancreatic, and Lung Cancer. The Company’s most recently launched & validated test, MVPdx for Lung Cancer, which differentiates local recurrence of cancer versus formation of new primary tumors. Interpace also offers ThyGeNix, ThyraMIR, PanoraGEN, and BarreGEN.

Intuitive Surgical
Sunnyvale, CA
At Intuitive®, innovating for minimal invasive care is the passion that drives us. Our robotic-assisted da Vinci® Surgical System helps empower doctors and hospitals to make surgery less invasive than an open approach.

JACE Medical
Westlake, OH
JACE Medical is the leader in speed and efficiency with rigid sternal closure appliances and technology (Low Profile). JACE offers the broadest portfolio on the market providing the thinnest plates and strongest screws for primary, specialty, and reconstruction procedures. For more information, please visit us at Booth #540 and www.jacedmed.com.

Johnson & Johnson Medical Devices Companies
New Brunswick, NJ
As the world’s most comprehensive medical devices business, we are building on a century of experience, merging science and technology, to shape the future of health and benefit even more people around the world. Our unparalleled breadth, depth and reach across surgery to include Ethicon, NeuWave Microwave Ablation, DePuy Synthes, we’re changing and simplifying health care delivery with a range of innovative HD Cameras for your operating room and go beyond with the LSI Solutions platform.

Kapp Surgical
Cleveland, OH
Kapp Surgical is a custom design shop which designs surgical instruments and implants, manufactures them, and sells as well as distributes them domestically and internationally. Kapp’s exclusive products are: The Cosgrove Heart Valve, Strip T’s surgical organizer, and countless surgical devices. FDA approved with several pending approval.

Karst Storz Endoscopy
El Segundo, CA
KARST ZORB combines high-quality optics and precision engineering for a range of minimally invasive products for thoracic surgery. The VITOM® 3D system provides a revolutionary solution for visualization of microsurgical and open surgical interventions. And, our ENDOLUMÉ® Telsonix allows surgical resections in tumors from 0° to 120° without changing telescopes.

Kimamed, Inc.
Camarillo, CA
Visit Kimamed’s booth to view a demonstration of the SuperCable®, Polymer iso-Elastic™ Closural System, which solves limitations of metal cable, wire and plating systems. SuperCable provides a dual strand footpoint which reduces cut-through. It elastically absorbs load & maintains compression; a low profile clasp minimizes palpability and the cable provides quick re-energize.

KLS Martin
Jacksville, FL
KLS Martin is a company dedicated to providing innovative medical devices and products that help surgeons worldwide. The company began with surgical instrument production in Tutlingen, Germany in 1896 and continues with minimally invasive and regenerative technologies. KLS Martin has advanced the capabilities of distinction osteogenesis and revolutionized respiratory fixation with the SorinFix Ped system.

L&J Med Group
Las Vegas, NV
Laser Engineering/Heart Laser 1140

LifeNet Health
Virginia Beach, VA
LifeNet Health helps save lives, restore health, and give hope to thousands of patients each year. We are the world’s most trusted provider of transplant solutions, from organ procurement to new innovations in bio-implant technologies and cellular therapies—a leader in the field of regenerative medicine, while always honoring the wishes and healthcare professionals that allow the treating process.

LivaNova
Arvada, CO
Sorin Group is a world leader in the treatment of cardiovascular disease. LivaNova’s product portfolio includes atrial and mitral valve replacement and repair; perfusion equipment, cannula and MISI instruments. For more information visit our web site at www.sorni.com.

LocumTenens.com
1041
Alpharetta, GA
Since 1995, LocumTenens.com has been a leader in placing physicians and advanced practice professionals in short-staffed healthcare facilities. LocumTenens.com also operates the largest job board in the industry, providing access to thousands of jobs, in all medical specialties, for free.

LoupCam Instruments & Company
326
Beverly, MA
LoupCam®, Instruments and Company provides innovative HD Cameras for your location and light source. Platform software solutions for Windows, Mac and Mobile Solutions. Recording HD videos has never been easier! Each LoupCam® brings you more intuitive than ever. Please visit us @loupacam.com.

LSI Solutions
917
LSI Solutions® is a medical device company dedicated to advancing minimally invasive technologies through research, development, and manufacturing of minimally invasive surgical instruments. Our mission is to make surgery safer and ultimately better for a patient. Our technology challenges human illness. Our mission is to lead the world in medical product innovation.
2019 EXHIBITOR MAP

Career Fair
Meet face-to-face with employers at the STS/CTSNet Career Fair. Recruiters will be available to talk about career opportunities; see a list of participating companies on page 11.

Learning Lab Theater
Exhibiting companies and others will present talks and demonstrations. See page 4 for a list of presentations. Don’t miss the Jeopardy Championship at 4:45 p.m. on Sunday!

Career Fair

Learning Lab Theater

STS Exhibit Hall Hours
Sunday 4:30 p.m. – 6:30 p.m.  |  Monday 9:00 a.m. – 4:30 p.m.  |  Tuesday 9:00 a.m. – 1:30 p.m.

STS Booth (#601)
Hear about the latest the Society has to offer, including member benefits, advocacy efforts, educational courses, e-learning modules, the STS Research Center, and the STS National Database.

Headshots (#602)
Have a professional headshot taken for business or personal use, compliments of STS.

STS Booth (#601)

STOs Booth (#601)

STOs Booth (#601)

STOs Booth (#601)
Terumo will display the VirtuoSaph® Plus world to advance the standard of cardiac care. Terumo® Perfusion Products, and new data management solutions. Terumo Aortic will display the most comprehensive portfolio of products in the aortic space - providing solutions that meet the global needs of clinicians.

Thompson Surgical
Traverse City, MI
Thompson Surgical is a leader in exposure and the original manufacturer of the table-mounted Thompson Retractor. Cardiovascular surgeons will benefit from the Thompson Bolling Retractor. The Bolling Retractor provides extremely low profile, stable, and Uncompromised Exposure of the heart structures for valve procedures. “Set it and forget it.” - Steven Bolling, MD

Transonic
Ithaca, NY
Transonic is the original inventor and innovator of transit-time flow measurement devices for CABG surgery, CHD Repair, CPB and ECMO cases. For over 33 years, Transonic flow measurement systems have been used to advance physiologic understanding as well as to provide surgeons with peace of mind that their anastomoses are patent prior to closure.

Veran Medical Technologies
St. Louis, MO
Veran is a privately held medical device company headquartered in St. Louis, MO. The company’s main focus is assisting physicians in the early diagnosis and treatment of lung cancer. Veran has developed and commercialized an FDA cleared, next generation electromagnetic navigation platform called the SPiN Thoracic Navigation System, which includes both endobronchial and transthoracic approaches.

WebMD and Vitals.com
El Segundo, CA
WebMD and Vitals.com comprise the #1 online source for finding doctors. The directories generate 14M monthly visits. Providers utilize Enhanced Profiles to earn top search results and competitive placement.

Western Thoracic Surgical Association
Beverly, MA
The Western Thoracic Surgical Association is an organization of cardiothoracic surgeons from 13 western states and 4 western provinces of Canada, whose one-of-a-kind meeting combines first rate scientific papers along with family-oriented activities. Please join us June 26-28, 2019 at Squaw Creek at Lake Tahoe in Olympic Valley, California.

Wexler Surgical, Inc
Houston, TX
Wexler Surgical designs and manufactures a variety of titanium and stainless steel specialty surgical instruments and products for Cardiac, Vascular, Thoracic, and Micro Surgery. Come see our VATS/MICS instruments and ask about our Optimus Series. Visit us online at www.wexlersurgical.com for more information about our products and services or email us at sales@wexlersurgical.com!

Wolters Kluwer
Philadelphia, PA
Wolters Kluwer Health is a leading global provider of information and point of care solutions for the healthcare industry. Our solutions are designed to help professionals build clinical competency and improve practice so that healthcare organizations can succeed in value-based care delivery models. Product solutions include Lippincott, Oxivir®, and UpToDate®

Zimmer Biomet Thoracic
Jacksonville, FL
Founded in 1927 and headquartered in Warsaw, Indiana, Zimmer Biomet is a global leader in musculoskeletal healthcare. We design, manufacture and market a comprehensive portfolio of innovative Thoracic products and treatment solutions for surgeons and patients including, the RibFix™ Blu Thoracic Fixation System and the StemaLock™ Blu Primary Closure System.

ZipLine Medical, Inc
Campbell, CA
ZipLine Medical offers surgical (Zip Surgical System and the SternaLock® Blu Primary Closure) solutions based on proven, non-invasive force distribution technology. Published clinical studies have demonstrated superior clinical and economic benefits vs. standard of care, including shorter procedure time, fewer wound-related complications and readmissions, and fewer post-operative provider visits.

ZipperBelt
Dallas, TX
Become an Advocate for CT Surgery

STS Key Contacts are the lifeblood of the Society’s advocacy efforts. Key Contacts meet with their elected officials in Washington, provide facility tours at home, and do much more to advocate for legislative and regulatory issues that affect cardiothoracic surgeons and their patients.

Key Contacts: Advocates for Cardiothoracic Surgery
Sunday
1:00 p.m. – 2:00 p.m.
Room 32

Many surgeons, however, may not know how to get started or may feel unprepared for these meetings. During the Key Contacts: Advocates for Cardiothoracic Surgery session, experienced Key Contacts will share their stories from the front lines of STS advocacy, as well as provide tips and role-play a meeting with a member of Congress—showing how to make things go well and explaining what to do if they don’t. Speakers also will review the Society’s advocacy priorities, focusing especially on health care issues that will face the new Congress. With so much at stake, the voices of cardiothoracic surgeons need to be heard. Make time to learn how you can contribute.

ctsurgerypatients.org
Share it with your patients today!

The Patient Guide to Heart, Lung, and Esophageal Surgery is a trustworthy resource, reviewed by STS members, to share with your patients and their families. This website uses layman’s terms to explain symptoms, diagnoses, treatment options, and recovery through text, pictures, animation, and videos.

Available in English and Spanish

Enhance Your Meeting Experience With STS University

STS University, a popular series of hands-on learning activities, will take place during two sessions on Sunday morning. Several courses still have space available, so check at Registration if you’d like to add one or more to your schedule. Each course is $175.

These courses exclusively feature hands-on experience in a wet lab or on a simulator—no didactic lectures will be given during the sessions. You can view the lectures in advance at sts.org/stsuniversity.

Course 1: Essentials of TAVR
Course 2: TEVAR and Aortic Arch Debranching Procedures
Course 3: Mitral Valve Repair
Course 4: Valve-Sparing Aortic Root Replacement – Reimplantation
Course 5: Aortic Root Enlargement Procedures and Aortic Valve Leaflet Reconstruction
Course 6: VATS Lobectomy
Course 7: Advanced Open Esophageal and Tracheal Procedures
Course 8: Complex Chest Wall Issues for the Thoracic Surgeon: Reconstruction After Tumor Resection, Pectus Deformities, and Rib Fractures
Course 9: Minimally Invasive Aortic and Mitral Surgery
Course 10: Peroral Endoscopic Myotomy (POEM) Skills
Course 11: Robotic Lobectomy
Course 12: VATS Sleeve Lobectomy
Course 13: Percutaneous Transseptal Access, Transcatheter Mitral Valve Repair, and Mitral Valve-in-Valve Replacement

Mark Your Calendars!

STS Future Courses & Meetings

Workshop on Robotic Cardiac Surgery
March 29-30, 2019
Atlanta, Georgia

TEVAR Symposium
April 4-5, 2019
Chicago, Illinois

Workshop on Robotic Thoracic Surgery
May 16-18, 2019
Atlanta, Georgia

Advances in Quality & Outcomes: A Data Managers Meeting
October 23-25, 2019
New Orleans, Louisiana

Tech-Con 2020
January 25, 2020
New Orleans, Louisiana

56th Annual Meeting
January 26-28, 2020
New Orleans, Louisiana

STS Co-Sponsored Courses

2019 Multidisciplinary Thoracic Cancers Symposium
March 14-16, 2019
San Diego, California

First Intercontinental Multi-Society Symposium on Lung Cancer
May 18, 2019
Belo Horizonte, Brazil

Learn more at sts.org/meetings.
As technology and patient acuity expand, cardiothoracic surgeons and their teams must understand how to use the latest pharmacologic and mechanical therapies for emergencies in the critical care setting.

Sunday’s Critical Care Symposium will provide attendees with methods and evidence-based protocols for the innovative management of multiple urgent scenarios. “We’ll focus on major issues that cardiothoracic surgeons have to deal with on an almost-daily basis,” said co-moderator Michael S. Firstenberg, MD, of The Medical Center of Aurora, CO. “Attendees will go home with a better understanding of the current literature, thinking, and science behind critical care challenges and of how to apply this new knowledge in their own decision-making.”

Additionally, respiratory emergencies with hemodynamic compromise often arise in the critical care setting and require cardiothoracic intervention and management. Recent studies, including the EOLIA trial, suggest that use of ECMO in certain subpopulations may offer clinical benefit to patients with acute respiratory distress syndrome (ARDS) that does not respond to conventional care. “A review of the data from these studies, as well as new guidelines, will provide attendees with an overview of evidence-based therapy for ARDS,” said Dr. Milewski.

Among the emergencies presented will be unexpected cardiac arrest, for which outcomes have been poor. “Extracorporeal membrane oxygenation (ECMO) is an option for patients with cardiac arrest that is refractory to resuscitative measures, and recent changes in its use call for a discussion of the indications and contraindications for extracorporeal cardiopulmonary resuscitation (ECPR),” said co-moderator Rita C. Milewski, MD, PhD, of the Hospital of the University of Pennsylvania in Philadelphia. Speakers will explore resuscitation of patients with difficult arterial and venous access sites for cannulation, strategies for left ventricular venting, and recovery versus transition to another platform.

A respiratory emergency, pulmonary embolism, has multiple therapeutic options available, including thrombolytic therapy, catheter-based interventions, and surgical embolectomy. “Pulmonary embolism can be encountered in a number of clinical situations, and the spectrum of local capability and clinical urgency guides the management,” said co-moderator Subhasis Chatterjee, MD, of Texas Heart Institute at CHI Baylor St. Luke’s Medical Center in Houston.

More and more patients are taking anticoagulants, and an increasing number of anticoagulant agents are now available. Many physicians are uncertain of how to treat patients taking non-vitamin K oral anticoagulants (NOACs), especially in the critical setting. Reversal of NOACs is another challenge, and new guidelines about managing bleeding patients who take anticoagulants recently were published. “Cardiothoracic surgeons should understand how to deal with the consequences of these drugs and use technology for monitoring and testing,” said Dr. Firstenberg. “Attendees will learn how to take a leadership role in managing anticoagulation dilemmas.”

Attendees will have an opportunity to discuss management conundrums at their own institutions. “We’re pulled into these challenging situations whether we practice at academic hospitals or community hospitals. Major decisions are difficult regardless of where we practice.”

MICHAEL S. FIRSTENBERG, MD
The Multidisciplinary Team: Collaborating to Improve Outcomes

A multidisciplinary team is key to improving clinical outcomes, reducing the length and cost of hospital stays, and enhancing communication among health care providers. As the movement toward collaborative care gains momentum, nonphysician health care providers are playing increasingly important roles on the cardiothoracic surgery team. Among them are advanced practice providers (APPs), who can help enhance the quality and efficiency of health care delivery, especially as treatment options expand, care becomes more complex, and patient acuity levels increase. As a result, it is crucial to train APPs so that they understand evidence-based care guidelines and are capable of autonomously providing advanced care in different settings.

Models of care and training for cardiothoracic surgery APPs at Duke University in Durham, NC, and Johns Hopkins University in Baltimore will be

shared at Sunday morning’s multidisciplinary team session.

“Attendees will learn about innovations and trends in institutions with significant experience, and they can then implement those concepts back home,” said co-moderator Stefano Schena, MD, PhD, of Johns Hopkins.

“At Duke University Hospital, APPs enhance care across the spectrum, including preoperative, OR, ICU, and step-down unit settings. As a result, we’ve had to create unique approaches to onboarding, precepting, and orientation of these crucial team members,” said co-moderator Jill Engel, DNP, ACNP, of Duke University Health System.

IMPLEMENTING ERAS PROTOCOLS

Another relatively new trend in the care of cardiothoracic surgery patients involves enhanced recovery after surgery (ERAS) protocols, which are multimodal, evidence-based, perioperative care plans. The cardiac surgery ERAS protocol includes evidence-based consensus on 23 recommendations, and the thoracic surgery protocol includes 18 such recommendations.

Although these protocols are relatively new, studies have already shown that they significantly reduce length of stay, duration of mechanical ventilation, postoperative complications, and costs. However, putting an ERAS protocol into practice can be challenging.

“Implementing ERAS requires essential clinical experts, electronic health record analysts, and task-driven planning tools to effectively redesign workflows, beginning in the physician’s office,” said Jill Ley, RN, MS, of California Pacific Medical Center in San Francisco.

Ley and other speakers with ERAS experience will share work plans, milestone documents, provider engagement strategies, targeted patient education literature, and other tools that have proven successful in integrating ERAS into the organizational cultures at their institutions.

In addition to these invited lectures, scientific abstracts on interprofessional simulation, early recovery for coronary artery bypass grafting surgery, autologous blood donation, and other multidisciplinary topics are part of the program.

The Multidisciplinary Team: How We Do It

Sunday 7:00 a.m. – 12:00 p.m.
Room 30E

How to Live Tweet From the STS Annual Meeting

Using Twitter for communication and information dissemination at major medical conferences such as the STS 55th Annual Meeting allows for real-time international conversations, critical appraisal, and networking. Discourse via Twitter broadens the discussion venue for scholarly activity by engaging those attending a meeting, as well as those who are unable to attend. Best of all, these conversations often continue even after the meeting adjourns.

This live tweeting how-to guide will help you maximize your conference experience and expand the reach of the exciting science presented at the meeting.

GET YOUR ACCOUNT READY

Make sure that your Twitter profile is public so that anyone attending the STS Annual Meeting can see your tweets. If it’s private, only those who you have approved to follow will see your tweets. Also make sure that you are following individuals in the cardiothoracic surgery community, as well as organizations such as STS (@STS_CTSurgery).

ENCOURAGE DISCUSSION OF YOUR WORK

If you’re presenting at the meeting, tweet about your talk in advance to build anticipation. You also can schedule tweets to be sent out during your presentation using a third-party app. You may want to include your Twitter handle and your institution’s handle on your slides, as well as the conference hashtag (#STS2019). Assume by default that data are no longer private once presented.

START SHARING YOUR MEETING EXPERIENCE

You can highlight sessions that you’re looking forward to attending or share something interesting that you heard during a presentation. Construct your tweets carefully to have the highest impact. Essential components include:

- Hashtags – Using the meeting hashtag, #STS2019, ensures that anyone who is following the meeting feed will see your tweet. Your tweets also could appear in the STS Meetings app or here in the STS Meeting Bulletin. Additional hashtags that may be relevant are shown in the accompanying table.
- Speaker tags – If you’re tweeting about a specific presentation, tag the speaker and their institution by typing @ in front of their usernames. This will notify the speaker that you’ve tweeted about their presentation; they may retweet, reply to, or like your tweet.
- Quotes – Differentiate your personal views from those of the speakers by using quotations.
- Additional resources – Make your tweet more interactive by linking to relevant studies mentioned in the presentation or including a photo of key slides. (Note that taking photos of slides during Tech-Con 2019 is not permitted.)
- In addition to tweeting your own thoughts, you can interact with other Annual Meeting attendees by responding to their posts.

FOLLOW APPROPRIATE TWITTER ETIQUETTE

It’s important not to disturb your fellow meeting attendees while you’re tweeting. Turn down your phone brightness and volume, and do not obstruct the view of other attendees. In addition, respect intellectual property if requested by the presenter. And keep in mind that while controversy is acceptable, don’t attack someone who may hold different views than you do. Keep your conversation civil.

This article was adapted from a story published in the Winter 2019 edition of STS News by Jessica Luci and Marcia B. Antonoff, MD (＠marciantonoff).
Features include:

- Full meeting program with abstracts, session locations, and speakers
- Customizable itinerary
- CME Credit/Evaluation link
- Exhibitor listing with floorplan
- Important meeting alerts and updates
- Compatible with iOS and Android mobile devices

Scan the QR code at left, or visit sts.org/mobileapp
from the browser on your mobile device.
Claim Continuing Medical Education Credit

The STS 55th Annual Meeting utilizes an entirely electronic evaluation and CME/Perfusion CEU credit claim process. Both physicians and perfusionists can use this system to claim credit, complete evaluations, and print CME/Perfusion CEU certificates. Certificates of Attendance are also available for other attendees and international physicians not wishing to claim CME/Perfusion CEU credit. Attendees will not be able to evaluate and claim CME/Perfusion CEU credit for ticketed sessions unless they have registered for those sessions. Please note that CME credit is not available for the Residents Symposium, Residents Luncheon, or Tech-Con 2019.

Attendees can complete evaluations by clicking on the Credit/Evaluation button on the STS Meetings mobile app, going to sts.org/2019evaluation, or visiting computer stations located on the upper level near Ballroom 20 and on the lower level near Registration. In order to make this process more convenient for attendees, the meeting evaluations will be available through Friday, February 15.

Attendees can log in to the website with the following information: Username: 6-digit STS member ID number printed on their meeting badge. Password: First initial and last name.

Industry-Sponsored Satellite Activities

Satellite activities are programs offered by industry and held in conjunction with the STS 55th Annual Meeting. They are not developed or sponsored by STS.

**SATURDAY**

6:45 p.m. – 9:30 p.m.
Johnson & Johnson Medical Devices Companies
Hands-On Anastomosis Training with Simulators
Marriott Marquis San Diego Marina – Grand Ballroom 10
333 W Harbor Dr.

**MONDAY**

6:30 p.m. – 8:30 p.m.
HCA Healthcare
Cardiothoracic Surgery Mixer
Water Grill, 615 J St.

6:30 p.m. – 9:00 p.m.
Medtronic
Valiant Navion Dinner: The Next Generation in TEVAR
Marriott Marquis San Diego Marina – Grand Ballroom 10
333 W Harbor Dr.

6:30 p.m. – 10:00 p.m.
Zimmer Biomet CRM & Thoracic
Improving Outcomes and Reducing Complications in Cardiac Surgery
Morton’s The Steakhouse, 285 J St.

This list is accurate as of January 7, 2019.

Satisfy CME requirements in specific topic areas with STS Clinical Care E-Learning Modules

Designed for cardiothoracic surgeons and their teams.

sts.org/clinicalcaremodules

Thank you!
The Society of Thoracic Surgeons gratefully acknowledges the following companies for providing educational grants for the STS 55th Annual Meeting.

**Platinum Benefactors**
- Abbott
- Medtronic

**Silver Benefactors**
- Boston Scientific Corporation
- Johnson & Johnson Medical Devices Companies
- Olympus

This list is accurate as of January 7, 2019.
Apply for STS Membership Today

As an STS 55th Annual Meeting attendee, you are participating in the most exciting specialty in medicine. But if you are not yet an STS member, you may not be experiencing the profession to its fullest.

STS membership comes with a wide range of benefits, including complimentary subscriptions to The Annals of Thoracic Surgery, STS News, and personalized email communications. Additionally, you’ll receive communications. Additionally, you’ll receive STS News, Surgery, and personalized email subscriptions to The Annals of Thoracic Academy: How to Write a Great Review—Essential Components of Outstanding Peer Reviews Room 30G

Unconscious Bias (organized by Women in Thoracic Surgery) Room 30AB

5:30 p.m. – 6:30 p.m.

Opening Reception in STS Exhibit Hall Halls EFG

4:45 p.m. – 5:30 p.m.

Jeopardy Championship Halls EFG

5:30 p.m. – 6:30 p.m.

Poster Presentations Halls EFG

5:30 p.m. – 6:30 p.m.

2019 The Thoracic Surgery Foundation Awards Announcement and VIP Reception (by invitation only) Marriott Marquis San Diego Marina, Grand Ballroom 4

7:00 p.m. – 10:00 p.m.

President’s Reception (ticket required) Crown Room, Hotel del Coronado

Neonatal Surgical Techniques Influence Outcomes

Thanks to major medical and surgical advances, 85%-90% of patients with congenital heart defects now survive into adulthood. Congenital and adult cardiac surgeons are learning more about long-term sequelae and how neonatal and childhood repairs can set up patients for long-term success or failure.

“The details of the surgical technique during the primary repair of a congenital heart defect have big implications for a patient’s quality of life, even decades later,” said Jennifer S. Nelson, MD, MS, of Nemours Children’s Hospital in Orlando. During the Adult Congenital Heart Disease Symposium, pediatric and adult cardiac surgeons from around the world will share successful techniques and methods that can optimize patient outcomes.

HOT TOPICS IN THE FIELD

Chaired by Richard Lee, MD, the Workforce on Annual Meeting and its related task forces worked hard to help ensure that each day of the meeting includes hot topics and information that you can put into practice as soon as you return home.

Among them is a session on Monday that will look at diversity and inclusion in cardiothoracic surgery. Joan Reede, MD, MPH, MBA, Dean for Diversity and Community Partnership at Harvard Medical School in Boston, will discuss the value of diversity and inclusion for your practice, service line, and community relationships. A session organized by Women in Thoracic Surgery on Sunday will also examine the issue of inclusion in the specialty, specifically through the lens of how our unconscious biases can affect the recruitment and retention of surgeons in our field, as well as our relationships with colleagues and patients.

Additionally, several abstracts and invited lectures highlight pain management strategies, including enhanced recovery after surgery protocols and opioid prescribing patterns by cardiothoracic surgeons. Our specialty needs to face the opioid issue head on so that we can get ahead of the problem and help prevent further tragedies, so please attend these important presentations.

DOWNLOAD THE MOBILE APP

Your most valuable resource at the meeting this year is the STS Meetings app; printed programs are no longer provided. With the app, you can save favorite sessions/presentations to your custom itinerary, read scientific abstracts, and more. If you haven’t done so already, download it now by searching for “STS Meetings” in the Apple iOS App Store or Google Play Store. You also can scan the QR code on page 16 of this newspaper.

On behalf of the Society’s leadership, thank you for being here.

Keith S. Nauheim, MD
STS President

ETHICS DEBATE

continued from page 1

“The drawback, ethically, would be that we shouldn’t genetically manufacture human beings. That’s on ethically shaky ground. But most people would agree that gene editing will play a role in controlling diseases and improving health. The questions are: How far do we take it, and what are the ethical boundaries?” asked Dr. D’Amico.

This is the type of debate that cardiothoracic surgeons won’t hear in any other forum, Dr. D’Amico added.

“This is totally unique. No other conference talks about the ethical boundaries of what we’re currently doing,” he said. “I think it’s going to be one of the best debates we’ve ever had.”
Stop by our booth to see our innovations.

Avalus™ Bioprosthesis

With more than 40 years of heart valve innovations, we took proven valve design concepts and adapted them for excellent implantability for you and performance for your patients.
For more than 40 years we have shared your goal of advancing coronary artery bypass graft (CABG) surgery, the standard of care for revascularization of patients with coronary artery disease. The CABG patient of today presents new challenges and has specific resource requirements, from pre-operative stabilization to intra-operative treatment and post-operative recovery.

Explore how we can help you provide the best care for today’s CABG patient.

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