



STS Meeting Bulletin

The Society of Thoracic Surgeons
56th Annual Meeting
New Orleans, Louisiana | sts.org
#STS2020

MONDAY-TUESDAY | JAN. 27-28, 2020

Monday Program

6:30 a.m. – 5:00 p.m.

Registration
Hall B1 Lobby

9:00 a.m. – 4:30 p.m.

Exhibit Hall
Hall B2

7:00 a.m. – 9:00 a.m.

Career Navigation and
Development: How to Take Your
Career to the Next Level
Room 211

Congenital: Pediatric Congenital I
Room 217

Introduction to Cardiothoracic
Health Services Research
Room 229

STS/EACTS: Bicuspid Aortic
Valve Repair with Aortic Root
Aneurysm—Techniques and
Outcomes
Room 225

STS/ESTS: Getting Out of
Trouble—Rescue Surgery after
Common Nightmare Situations
Room 208

STS/ISHLT Joint Symposium:
Controversies in Thoracic Organ
Failure
Room 207

What's New in Thoracic Oncology
Room 220

8:00 a.m. – 9:00 a.m.

Adult Cardiac:
Basic Science Research
Room 215

see [SCHEDULE](#), page 3



Limited Populations, Lost Patient Follow-Up Impact TAVR versus SAVR Data

Three pivotal trials—Evolut, PARTNER 3, and PARTNER 2A—have shown that transcatheter aortic valve replacement (TAVR) was noninferior to surgical AVR (SAVR) in terms of mortality and stroke among low-risk patients with symptomatic severe aortic stenosis.

But speakers at Sunday's session on the evolving impact of TAVR said that many questions about TAVR and SAVR remain unanswered.

Michael J. Reardon, MD, from Houston Methodist Hospital in Texas, emphasized that TAVR may be preferred over surgery for low-risk patients, but only in the

population tested in the Evolut trial. The mean ages for Evolut and PARTNER 3 were similar (74 years and 73 years, respectively), while the PARTNER 2A population had a mean age of 82 years.

"We did not test enough young people," said Dr. Reardon. Physicians see [TAVR](#), page 3

NextGen STS National Database Is Ready for Launch

More than 2 years in the making, the next generation STS National Database launches this week. The phase 1 rollout will include a data uploader, missing variable report, interactive dashboard, and a data quality report that will provide feedback within minutes after upload.

Vinay Badhwar, MD, chair of the STS Council on Quality, Research, and Patient Safety, will demonstrate some of these transformative features during the Monday morning plenary session, "The Next Generation STS National Database: The Future Is Now," in Great Hall A.

"The transition represents an evolution for all consumers of the STS National Database," Dr. Badhwar said. "This is an exciting time for our specialty as we collectively strive to improve our experience, reduce data burden, and save time and resources, while maintaining a unified platform for surgical quality."

The platform is powered by the Society's new data warehouse, IQVIA, a leading global provider of advanced technology solutions. IQVIA representatives will demonstrate the new dashboards at the STS Booth (#101) in the Exhibit Hall.

Phase 2 launch, which is planned for this spring, will include access to risk-adjusted outcomes and like group comparisons for participants in the Adult Cardiac Surgery Database (ACSD). For participants in the General Thoracic Surgery Database and the Congenital Heart Surgery Database, access to risk-adjusted outcomes will come during phase 3 this summer. At that time, ACSD participants will see a more than 30% reduction in the number of data entry variables, which will save time and resources, without sacrificing the granularity or robustness of the data.

For the latest updates on the next generation Database, visit sts.org/database.

Yancy Makes Impassioned Plea for Diversity and Inclusion



In a thought-provoking and inspiring talk at Sunday afternoon's opening session, Clyde W. Yancy, MD, emphasized the need for diversity and inclusion within the medical profession as a way to improve health outcomes.

Dr. Yancy, vice dean for diversity and inclusion and chief of the Division of Cardiology at Northwestern University's Feinberg School of Medicine in Chicago, delivered the inaugural Vivien T. Thomas Lecture, established to honor a man who helped usher in a new era in cardiothoracic surgery during a polarizing time in the United States.

Thomas was a black laboratory supervisor who worked with famed

physician Alfred Blalock, MD, at Vanderbilt University in the 1940s. When Johns Hopkins recruited Dr. Blalock, he refused to move unless Thomas accompanied him as a "package deal." Despite Thomas's integral role in Blalock's pioneering work in shock, vascular, and cardiac surgery, he was hired and paid as a janitor and was not allowed to use the main entrance to Johns Hopkins. He was not mentioned as a coauthor in scientific publications and was not included in group photos of trained physicians. Thomas's life was beset by discrimination, segregation, and bias, said Dr. Yancy. "But was it?" he asked.

Before answering that question, Dr. Yancy explored the current state of

diversity and inclusion in the United States. The demographics of the country are changing, and there is no longer a majority population. "This is an excellent opportunity to make an argument for inclusion," he said.

He noted that the absence of a diverse workforce in medicine contributes in part to disparate disease outcomes, pointing to the low percentage of transcatheter aortic valve replacement procedures performed in black patients as an example. "When we make decisions, we bring certain templates of thoughts to the table," he said.

Dr. Yancy also explained the influence of implicit bias—which he described as a tendency or see [LECTURE](#), page 11

Free Wi-Fi

Complimentary wireless internet is available in the convention center. To connect, select "STS2020" from the available networks. A password is not required.



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Prof. Dr. Med. Farhad Bakhtiary
Chief Physician at Helios Hospital,
Siegburg-Bonn, Germany

BOOTH **225**

LSISOLUTIONS®

STS Advances Use of Artificial Intelligence, Machine Learning in CT Surgery

The Society is a recognized leader in quality measurement and public reporting of surgical outcomes. Now, STS is taking a leading role in the use of artificial intelligence (AI) and machine learning (ML) to further improve patient care and outcomes in cardiothoracic surgery.

“STS is ideally positioned for this leadership role because of our long history in traditional statistical modeling approaches, the ongoing collaborations of many STS surgeon investigators with academic AI/ML departments, and our most unique asset—the premier clinical data outcomes registry in health care: the STS National Database,” said David M. Shahian, MD, from Harvard Medical School and Massachusetts General Hospital in Boston. “Modern AI/ML approaches are ‘data hungry,’ and within the Database, we have not only the most (8 million records), but also the highest-quality, audited, and validated clinical data available.”

In the coming year, the STS National Database will be further enhanced by supplemental data that include sociodemographic indicators, long-term survival, and reoperation information. Collectively, Dr. Shahian said, it will form an unparalleled source of data from millions of cardiothoracic surgical patients that can be used for AI and ML studies.

The role and future direction of AI/ML is the focus of Tuesday’s session, Machine Learning in Prediction of Cardiothoracic



“We hope that this session stimulates all STS members to delve deeper into AI and ML techniques and think about possible applications in our specialty.”

David M. Shahian, MD

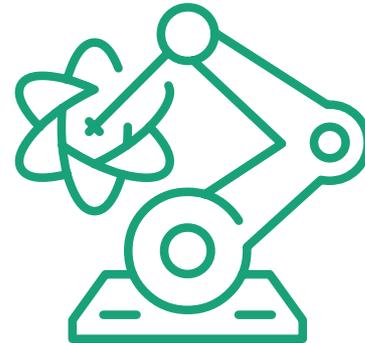
Surgery Outcomes, moderated by Dr. Shahian and Joseph A. Dearani, MD, from Mayo Clinic in Rochester, Minnesota.

Dr. Shahian explained that many aspects of supervised AI and ML (such as binary classification of a patient’s outcome) are similar to those of conventional modeling, including the selection of a population cohort and identification of potential risk factors. Just as in traditional statistical modeling techniques, it’s important to develop independent training and validation sets and to validate model performance both in the original population from which the models were developed, as well as in new populations; this avoids model overfitting and assures their generalizability.

“Arguably, the biggest difference between traditional and AI/ML modeling techniques is that the former pre-specify the form of the anticipated relationships between input (e.g., risk factors) and output (e.g., outcomes) variables, which often are assumed to be rather simple (e.g., additive),” Dr. Shahian said.

“Conversely, the algorithms in AI/ML learn iteratively from the data to which they are exposed, and they are mathematically much more complex. They may involve complex nonlinear relationships and patterns that are not apparent with traditional approaches.” AI/ML also may identify additional risk factors or combinations of factors that were previously unrecognized. Finally, unsupervised AI/ML algorithms may detect associations or groupings, sometimes called clusters, that otherwise would not have been evident.

With the availability of cloud-based data storage and ever-increasing computer processing speeds, the potential applications of AI/ML continue to expand, Dr. Shahian said. However, he noted that claims about the superiority of this technology for certain tasks—such as predicting patient outcomes based on preoperative data—have been premature and sometimes wildly exaggerated. Accordingly, STS has formed a working group of surgeons and AI/ML experts from numerous academic centers to coordinate these investigative efforts in a strategic,



thoughtful manner.

Dr. Shahian said he began exploring AI and ML more than 2 decades ago with colleagues from the Massachusetts Institute of Technology in an attempt to improve the prediction of coronary artery bypass grafting outcomes using a multilayer perceptron neural network. Incorporating data from the STS National Database, it was among the earliest studies utilizing AI and ML in health care. He expects Tuesday’s session to demonstrate how far AI and ML have advanced since those early studies, but also how much opportunity there is for continuing investigation.

“We hope that this session stimulates all STS members to delve deeper into AI and ML techniques and think about possible applications in our specialty,” he said. ●

Machine Learning in Prediction of Cardiothoracic Surgery Outcomes

Tuesday
7:00 a.m. – 9:00 a.m.
Room 224

study and have their data collected in a registry.

Vinod H. Thourani, MD, from Piedmont Heart Institute in Atlanta, reported the 5-year outcomes for the PARTNER 2A trial. He noted that a disproportionate number of SAVR patients withdrew from the study. At the end of 5 years, 91% of patients in the TAVR group and 81% in the surgery arm completed follow-up. “I consider this a limitation of the study,” said Dr. Thourani.

In reporting data from PARTNER 3, Gilbert Tang, MD, from the Mount Sinai Health System in New York, compared the findings of all three studies, saying the data indicate that surgery is better in terms of new left bundle branch block, mild pulmonary vascular resistance, and valve gradients; SAVR and TAVR are similar in terms of the need for new pacemakers, vascular

complications, moderate-to-severe pulmonary vascular resistance, and coronary obstruction; and TAVR is better in terms of mortality, stroke, rehospitalization, acute kidney injury, severe bleeding, new-onset atrial fibrillation, 30-day quality of life, and length of stay (hospital and ICU).

Nick Freemantle, PhD, a biostatistician from University College London, discussed flaws in the methodology of the trials. For example, he said that the non-inferiority boundary on the primary endpoint of 6% includes many clinically important values for major morbidity and mortality. He also pointed to biases related to as-treated (per-protocol) analysis and inadequately concealed randomization.

In light of these issues, he stated, “TAVR may or may not be a safe and effective alternative to SAVR.” ●

SCHEDULE

cont. from page 1

9:15 a.m. – 10:30 a.m.

Plenary Session
Great Hall A

9:15 a.m. – 9:30 a.m.

The Next Generation
STS National Database:
The Future Is Now
9:30 a.m. – 10:30 a.m.
J. Maxwell Chamberlain
Memorial Papers

10:30 a.m. – 11:00 a.m.

Break—Visit Exhibits and
Scientific Posters
Hall B2

11:00 a.m. – 12:15 p.m.

Plenary Session
Great Hall A

11:00 a.m. – 11:15 a.m.

Introduction of the President:
Joseph A. Dearani

11:15 a.m. – 12:15 p.m.

Presidential Address:
Robert S.D. Higgins

12:15 p.m. – 1:15 p.m.

Lunch—Visit Exhibits and
Scientific Posters
Hall B2

1:15 p.m. – 3:15 p.m.

Adult Cardiac: Aorta I (Dissection)
Room 225

Adult Cardiac: Ischemic
Room 211

Cardiothoracic Surgical Education
and Professional Development
Room 224

Congenital: Pediatric Congenital II
Room 217

Education Summit:
Training Residents Today
to Thrive in 2030
Room 229

Extracorporeal Membrane
Oxygenation for the Current
Practice
Room 208

General Thoracic: Lung Cancer
Big Data
Room 220

General Thoracic:
Lung Transplantation
Room 215

Heart Team Approach
to Mitral Regurgitation
and Atrial Fibrillation
Room 207

3:15 p.m. – 4:00 p.m.

Break—Visit Exhibits
and Scientific Posters
Hall B2

4:00 p.m. – 5:00 p.m.

Plenary Session
Great Hall A

4:00 p.m. – 5:00 p.m.

Thomas B. Ferguson Lecture:
Domenico Pagano

5:15 p.m. – 6:15 p.m.

Business Meeting
(STS Members only)
Great Hall B

This session will be streamed
live at sts.org/streamSTS2020.

For Tuesday program, see page 10.



The Society
of Thoracic
Surgeons

STS Meeting Bulletin

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TAVR

continued from page 1

must emphasize to younger patients that the results of these trials should not be applied to them, he added.

Another issue is the number of patients who were excluded and those who withdrew from the studies. Dr. Reardon highlighted two key exclusion criteria for Evolut: bicuspid aortic valve (verified by imaging) and coronary artery disease. PARTNER 3 had these same exclusion criteria. Excluding patients with these clinical features created “knowledge gaps,” said Dr. Reardon.

He said that his “biggest regret” about Evolut is not knowing why 260 of 1,728 patients (14.8%) were screened out at the national level. He said that it would have been better to allow these patients to stay in the



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ISCHEMIA, Surgical Experience Trials Refine Current Practice

Two hot topics will be discussed and debated at an adult cardiac session on Monday afternoon—the ISCHEMIA trial and the impact of surgical experience on mortality rates following reoperative cardiac surgery.

“The session puts these trials into perspective, which is critical,” said Ibrahim Sultan, MD, from the University of Pittsburgh Medical Center in Pennsylvania. “We can be overwhelmed by the amount of information coming our way. This session focuses on what is relevant and important to us as surgeons.”

The ISCHEMIA trial compared outcomes for patients with stable ischemic heart disease who received optimal medical therapy and lifestyle interventions versus optimal medical therapy plus angiography and revascularization by percutaneous intervention or coronary artery bypass grafting (CABG) surgery. Nearly 5,200 patients with confirmed stable ischemic heart disease were

randomized and followed for 3.3 years.

Patients who received optimal medical therapy plus lifestyle interventions had more spontaneous myocardial infarctions (MIs), while patients who received percutaneous intervention or CABG had more procedural MIs. The overall composite outcome of cardiovascular death, MI, hospitalization for unstable angina, heart failure, or resuscitation from cardiac arrest were similar between the two groups.

“ISCHEMIA confirmed what some of the prior work has shown for patients with stable angina—that the noninvasive approach does not increase mortality in the medium term,” said Dr. Sultan, who is a member of the STS Workforce on Annual Meeting Program Task Force and helped plan the Adult Cardiac: Ischemic session.

“These results are not likely to change anything major for surgeons,” Dr. Sultan continued.



“ISCHEMIA confirmed what some of the prior work has shown for patients with stable angina—that the noninvasive approach does not increase mortality in the medium term.”

Ibrahim Sultan, MD

“What it may change is the number of invasive coronary angiograms that are done for patients with stable disease. If these patients continue to have significant disease and progress, they will continue to be referred for surgery. It is important to realize that CABG is still beneficial for patients who present with acute coronary syndrome such as a non-ST segment elevation myocardial infarction.”

The session also will feature scientific abstracts on bilateral versus single internal mammary artery grafts for CABG, the optimal configuration for bypass of the left anterior descending artery during bilateral internal thoracic artery grafting, total arterial off-pump

multivessel revascularization, and the impact of surgical experience on operative mortality following reoperative cardiac surgery.

Marc R. Moon, MD, from the Washington University School of Medicine in St. Louis, and his colleagues found that standardized mortality ratios are higher early in a surgeon’s career, but also that surgical outcomes decline during the later years of a surgeon’s working life.

“Our data suggest that there is a learning curve during the initial years of practice and a degree of skill attrition with very senior surgeons,” Dr. Moon said.

To offer additional perspectives on the topic, two surgeons will

debate whether age matters when performing cardiac surgery. Audience members also will be encouraged to share their opinions.

“We all should be asking for assistance as needed and making sure that those who are assisting us are at a high level—the senior resident as opposed to a junior intern, or even a colleague for selected cases,” Dr. Moon said. “That is true at both ends of our individual career spectrums.” ●

Adult Cardiac: Ischemic

Monday
1:15 p.m. – 3:15 p.m.
Room 211

Technology and Common Sense Are Key to Avoiding Practice Extinction

What’s the secret to keeping your practice alive and well? Embrace new technology, new skills, and even social media—that’s the prescription for success and avoiding practice extinction, according to Tom C. Nguyen, MD, from The University of Texas at Houston.

“It’s like a game of chess. To win, a practice must think not only one to two steps ahead, but three to four steps ahead,” Dr. Nguyen said. “We must look to the future, be receptive to new technologies, be involved with innovation, and work in a multidisciplinary and collaborative fashion.”

Dr. Nguyen will moderate Tuesday’s session, “Avoiding Practice Extinction: Staying Relevant with New Technologies and Techniques,” with Lana Y. Schumacher, MD, from Massachusetts General Hospital in Boston. The session will describe a framework for keeping practices sustainable now and in the future and will offer tips that physicians can apply immediately upon returning home.

Technology will be a key focus of the session, and speakers will guide attendees toward adopting the newest tools and techniques, including transcatheter aortic valve replacement (TAVR), electromagnetic navigational bronchoscopy, and robotics.

It’s an exciting time for cardiothoracic surgery, Dr. Nguyen said, thanks to recent “disruptive advancements” in catheter-based technologies and minimally invasive techniques. TAVR and MitraClip procedures are now critical treatments for structural heart disease.

“Most surgeons currently do not have the skillset to proficiently perform these procedures. If they do not learn them, they will become extinct,” he said. “Nearly 35% of what we do as cardiac surgeons is in the structural heart space. If we don’t learn transcatheter and minimally invasive skills, we’ll lose this share.”

Presentations will cover how to start transcatheter valve and robotic thoracic programs, better collaborate with cardiologists, fit training on new technologies into your schedule, and



“We must look to the future, be receptive to new technologies, be involved with innovation, and work in a multidisciplinary and collaborative fashion.”

Tom C. Nguyen, MD

take advantage of support tools from specialty societies. Representatives from STS, the American Board of Thoracic Surgery, and the Accreditation Council for Graduate Medical Education will provide unique perspectives on reviving practices headed toward extinction.

“How do surgeons learn to adopt new technology?” Dr. Nguyen asked. “The train has left the station. Can surgeons still get a ticket for the ride?”

Learning to use social media also is critical to avoiding practice extinction. “Most patients will use the internet to research or find their physician. In medicine, we tend to disregard the power of the internet and social media, but it’s clearly there,” Dr. Nguyen said.

Ultimately, the secret to a healthy

practice now and in the future requires cutting-edge thinking and a little common sense.

“Think outside the box, embrace new technology, learn to be proficient at transcatheter and minimally invasive procedures, and attend not only the STS educational courses, but also cardiology meetings,” Dr. Nguyen advised. ●

Avoiding Practice Extinction: Staying Relevant with New Technologies and Techniques

Tuesday
7:00 a.m. – 9:00 a.m.
Room 208



Thank You

The Society of Thoracic Surgeons gratefully acknowledges the following companies for providing educational grants for the STS 56th Annual Meeting.

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This list is accurate as of
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Meet with Top Employers

The STS/CTSNet Career Fair gives you the chance to meet face-to-face with employers and discuss potential career opportunities. The Career Fair is being held in the Exhibit Hall at the back of aisles 1100 and 1200.

Monday 9:00 a.m. – 4:30 p.m.
Tuesday 9:00 a.m. – 1:30 p.m.

Baton Rouge General Hospital
Booth #1141

Baylor Scott & White Health
Booth #1137

Bon Secours Mercy Health
Booth #1242

Carle Health System
Booth #1139

Confluence Health
Booth #1234

Duke Health
Booth #1236

McLeod Health Physician
Recruitment & Retention
Department
Booth #1241

Mercy
Booth #1237

Metro Health, University of
Michigan Health
Booth #1239

Penn State Health
Booth #1238

SoutheastHEALTH
Booth #1240

St. Elizabeth Healthcare
Booth #1135

The Permanente Medical
Group
Booth #1143

This list of employers is accurate as of Jan. 26, 2020.

Fetal Cardiac Intervention Represents a New Era in Congenital Heart Disease

A few decades ago, congenital heart defects weren't diagnosed until after babies were born. Then, fetal echocardiography allowed for early diagnosis and preparation. More recently, fetal cardiologists have successfully intervened in structural cardiac disease before birth.

"Just 10 years ago, there was a lot of eyerolling about fetal intervention. It was considered impossible or even unethical," said Carl L. Backer, MD, from Ann & Robert H. Lurie Children's Hospital in Chicago. "But today, we're realizing that fetal cardiologists are changing the natural history of congenital heart disease."

At a Tuesday session moderated by Dr. Backer, two expert fetal cardiologists will present recent innovations, dramatic case studies, and practical information that every congenital heart surgeon needs to know.

"When a surgeon is consulted on a patient with a fetal diagnosis of aortic stenosis or another structural abnormality, it's important to consider more than Norwood/Fontan. Fetal intervention is not a cure, but it opens up more options," said Anita J. Moon-Grady, MD, from the University of California at San Francisco.

The most common fetal



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Anita J. Moon-Grady, MD

procedure is balloon aortic valvuloplasty for severe aortic stenosis. The goal is to prevent the development of hypoplastic left heart syndrome (HLHS). Other fetal techniques include balloon pulmonary valvuloplasty and atrial septoplasty or stent placement.

Only a handful of medical centers in the US perform fetal cardiac interventions. In Europe and South America, the procedures are more common because Norwood reconstruction is not available. A recent report from the International Fetal Cardiac Intervention Registry concluded that regionalization of treatment is the best path forward.

"Fetal intervention procedures should not be attempted at every congenital heart surgery center," said Dr. Backer.

Parents who travel to regional centers for fetal interventions do so at great risk and expense. After

the babies are born, they deserve appropriate follow-up care, so it's especially important that local surgeons are prepared to evaluate and manage each newborn's unique condition.

"Fetal intervention is only the start of a treatment algorithm for the child. Postnatal care is very important for the ultimate outcome. Standard care is not enough. We have to rethink the paradigm," said Dr. Moon-Grady.

Wayne Tworetzky, MD, from Boston Children's Hospital, will describe surgical strategies for babies who have undergone fetal interventions. Many neonates require additional balloon treatments, Ross surgeries, or other procedures to help them develop biventricular circulation.

"What you see at birth is part of a continuum. The patient's left ventricular function can get better over time. The disease may still be

evolving," said Dr. Moon-Grady.

These babies represent a new era in congenital heart disease, requiring that surgeons throughout the world learn what to expect when they arrive. And with each passing year, new fetal techniques and technologies are being developed to help these tiny patients survive.

"Dr. Moon-Grady will enlighten us about a micro-pacemaker trial for fetal heart block, plus an IRB-approved laser treatment for HLHS with intact atrial septum," said Dr. Backer. "It's going to be a fascinating session with opportunity for a lively discussion." ●

Meet the Experts: Current State of Fetal Cardiac Intervention

Tuesday
11:00 a.m. – 12:00 p.m.
Room 217

Surgeon Burnout May Jeopardize Patient Safety

Personal and professional responsibilities that are overly demanding can have a major impact on burnout and job satisfaction for cardiothoracic surgeons—and this can have significant patient safety consequences.

"Surgeons who are at high risk of burnout may depersonalize their colleagues and patients, which then impairs the safety of their care," said Michal Hubka, MD, from Virginia Mason Medical Center in Seattle, who will moderate Tuesday's Patient Safety Symposium on burnout in the specialty. "If you don't perceive others as human beings and are just going through the motions, that's a real problem."

The session will outline causes of workplace burnout and offer practical solutions for addressing the variety of factors involved, with a

focus on counseling, coaching, and mentorship.

"The speakers will discuss resources and strategies to solve this problem on many levels, from the individual to the systematic," said co-moderator Dawn S. Hui, MD, from The University of Texas Health Science Center at San Antonio.

Dr. Hubka will present the results of an STS survey on physician wellness in cardiothoracic surgery. The key discoveries include:

- Job satisfaction was higher among surgeons with only one support staff member versus those surgeons with more than one support staff member.
- Better financial compensation and improved personal and organizational alignment were drivers of job satisfaction, but did not influence burnout rates.
- Job dissatisfaction and burnout



"One of the biggest threats to a lasting career is a lack of personal resilience and coping skills. How are we going to deal with it?"

Michal Hubka, MD

scores peaked in the group practicing for 11-15 years and tracked until 20 years in practice, when burnout scores decreased and job dissatisfaction scores increased.

- Of surgeons who participated in the survey, 34% reported that they don't perceive their colleagues as resilient or possessing the appropriate emotional tools to deal with stress; 17% of respondents said this of themselves.

"One of the biggest threats to a lasting career is a lack of personal resilience and coping skills. How are we going

to deal with it?," Dr. Hubka asked.

Attendees should note that this 2-hour session fulfills the Patient Safety requirement of the American Board of Thoracic Surgery's 5-year and 10-year Milestones for Maintenance of Certification. ●

Beyond Burnout: What You Should Know and Do Going Forward

Tuesday
1:00 p.m. – 3:00 p.m.
Room 208



Leader Insight Jonathan M. Chen, MD

STS membership is key for building the friendships, relationships, and collaborations that are going to carry you throughout the entirety of your career. Being an early member is really important because that's when you start to build these connections.

Cardiothoracic Surgery Slow to Adopt Robotic Technology, But Times May Be Changing

Robotic-assisted surgery has grown in popularity among many US surgeons. In fact, urologists and gynecologists use robots for a majority of their procedures. So why are thoracic surgeons still performing traditional open surgery 50% of the time?

Is it because they believe open surgery is best for their patients? Or are they unable to gain access to the equipment?

“Thoracic surgeons have been late adopters of robotic technology, but industry leaders are getting on board. I think we’re going to make up for lost time,” said Thomas K. Varghese, MD, MS, from the University of Utah School of Medicine in Salt Lake City, who will moderate Tuesday’s panel session featuring four proponents of robotic surgery.

The session will explore innovative techniques, best practices, patient

benefits, financial considerations, and training for robotic surgery.

“Today, most cardiothoracic training programs teach all three operating platforms: open thoracic surgery, video-assisted thoracic surgery (VATS), and robotic-assisted thoracic surgery. Trainees who have a complete foundation are considered the best candidates for quality centers,” said Dr. Varghese, who said he believes that almost every high-volume center in the US should have at least one robotic-assisted surgery system in place.

“We will discuss how to compete with urologists and gynecologists for access and how to negotiate with the C-suite for extra equipment,” he added.

Dr. Varghese said he is perplexed by the lack of support for robotics among some of his colleagues. In his mind, the benefits over open surgery

are clear: smaller incisions, no rib-spreading, less pain, shorter hospital stays, and quicker recovery. Robotics simply is the next generation of minimally invasive surgery.

“The robotic incisions are even smaller than VATS. The robotic arms allow wrist-like movements that are far more precise than VATS instruments. And the high-definition, 3D monitors make it much easier to move around arteries, veins, and critical structures,” he said.

Of course, robotic surgery is not right for every patient, nor every surgeon. Naysayers point to a lack of hard evidence about outcomes. “It’s a justified criticism,” said Dr. Varghese. “We need a randomized clinical trial that proves robots are better than VATS.”

Another complaint from hospital administrators is the price tag. Some believe costs will drop



“Thoracic surgeons have been late adopters of robotic technology, but industry leaders are getting on board. I think we’re going to make up for lost time.”

Thomas K. Varghese, MD, MS

when competitive systems enter the marketplace. Many argue that while the initial expenditure is high, the return on investment can be considerable over time.

Both advocates and critics will learn new information about the future of robotics at this session. “We look forward to a robust, open conversation,” said Dr. Varghese. “That’s good for our field and good for our patients.”

Stephanie G. Worrell, MD, from the University Hospitals Cleveland

Medical Center in Ohio, will present “Robotics and My First 100 Days in Practice.”

“I hope to encourage junior faculty about the resources available to help them embark on a thoracic robotics program,” she said. ●

Building a Thoracic Robotics Program

Tuesday
11:00 a.m. – 12:00 p.m.
Room 225

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.

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Booth # 455

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Learning Opportunities in the Exhibit Hall

Exhibiting companies and others will present talks and demonstrations in the Learning Lab Theater, which is located at Booth #844.

Monday

12:30 p.m. – 1:00 p.m.

AngioVac and Its Use in the Right Heart

Hosted by **AngioDynamics**

3:30 p.m. – 4:00 p.m.

The Clinical Benefits of a New Thoracic Energy Device – Before and After the LigaSure™ Maryland Jaw Thoracic Sealer/Divider

Hosted by **Medtronic**

This list is accurate as of Jan. 26, 2020.

Industry Symposia

The following programs are offered by industry and held in conjunction with the STS 56th Annual Meeting. They are not developed or sponsored by STS.

Monday

6:30 p.m. – 10:00 p.m.

State-of-the-Art Surgical and Transcatheter Treatment of Mitral and Tricuspid Valvular Diseases: Case-Based Discussions

Antoine's Restaurant, 713 Saint Louis St.

Hosted by **Abbott**

6:30 p.m. – 8:00 p.m.

Optimizing the Diagnosis and Treatment of Atrial Fibrillation

Arnaud's Restaurant, 813 Bienville St.

Hosted by **AtriCure and MediaSphere Medical**

6:30 p.m. – 10:00 p.m.

Monarch Robotic-Assisted Bronchoscopy: A Thoracic Surgery Perspective

Hilton New Orleans Riverside, Canal Room, 2 Poydras St.

Hosted by **Auris Health**

6:30 p.m. – 8:30 p.m.

NEW PERSPECTIVES: Technology and Changing Perspective in Aortic Valve Replacement

Tommy's Cuisine, 746 Tchoupitoulas St.

Hosted by **CryoLife**

6:30 p.m. – 8:00 p.m.

Lifetime Management of Aortic Valve Disease: How Should Shared Care Decision Making Change in 2020?

The Chicory, 610 S. Peters St.

Hosted by **Edwards Lifesciences**

6:30 p.m. – 7:30 p.m.

Medtronic Reception

King's Room, Brennan's, 417 Royal St.

Hosted by **Medtronic**

7:30 p.m. – 10:00 p.m.

Medtronic Dinner and Panel Discussion

Pelican Club Restaurant and Bar, 312 Exchange Pl.

Hosted by **Medtronic**

6:30 p.m. – 9:30 p.m.

Expanding the Thoracic Surgeon's Role in Managing Early Stage Lung Cancer through a Novel Diagnostic

Pier 424, 424 Bourbon St.

Hosted by **OncoCytte**

6:30 p.m. – 8:00 p.m.

Enhancing Recovery and Reducing Complications in Cardiac Surgery

Arnaud's Restaurant, 813 Bienville St.

Hosted by **Zimmer Biomet**

This list is accurate as of Jan. 26, 2020.

Business Meeting Tonight (STS Members Only)
5:15 p.m. – 6:15 p.m.
Great Hall B



2020 Annual Meeting Exhibitors



Tech-Con Exhibitor



New Exhibitor



STS Meeting Bulletin Advertiser

A&E Medical	517	Cook Medical	943	Johnson & Johnson Medical Devices Companies	125	Rultract/Pemco, Inc.	411
Abbott	414	CorMatrix	208	★ Kapp Surgical	1025	Saphena Medical	542
Abiomed, Inc.	817	★ CryoLife	1013	Karl Storz Endoscopy	905	Scanlan International	400
Abyrx, Inc.	329	CT Assist	734	Kinamed, Inc.	540	Society of Thoracic Surgeons, The	101
Acute Innovations	210	CTSNet	307	KLS Martin	431	Sontec Instruments	426
Advanced Neuromonitoring Associates, Inc.	1128	CV Staff Solutions	437	Koros USA, Inc.	443	STS Regional Data Managers	1129
American Association for Thoracic Surgery	1039	Designs for Vision	335	LifeNet Health	209	Summit International Medical Technologies	1036
AngioDynamics	842	EA Medical, LLC	643	LivaNova	117	SurgiTel/General Scientific Corp.	424
Applied Medical	929	EchoPixel	635	LocumTenens.com	538	SynCardia Systems, LLC	736
Ascyrus Medical	927	Eclipse Loupes and Products	1008	LSI Solutions	225	Talis Clinical	917
Atlas Medical USA	740	ECOM Medical, Inc.	1030	Med Alliance Solutions	725	Terumo	825
AtriCure, Inc.	801	Edwards Lifesciences	401	Medela Healthcare	737	THINK AORTA Working Group	1142
Auris Health	133	Elsevier	901	Medistim	511	ThinkMed Consulting	234
Aziyo	910	Essential	132	medpro	1002	Thompson Surgical	816
Baylis Medical	1012	European Association for Cardio-Thoracic Surgery	1134	Medtronic	601	Thynk Health	639
Baylor St. Luke's Medical Center	940	European Society of Thoracic Surgeons	1035	MedXpert North America	1105	Transonic	325
BD	811	Fehling Surgical	716	Merit Medical Endotek	937	Urethrotech	1004
Berlin Heart, Inc.	1107	Foldax	1040	Microsurgery Instruments, Inc.	1130	USB Medical	305
BFW, Inc.	818	Genesee BioMedical	432	Möller Medical GmbH	1034	Veran Medical Technologies	113
bioMérieux, Inc.	743	★ Geringe	425	Nadia International	308	Visit Austin	1101
Biom'up USA, Inc.	1031	Gore & Associates	109	Nova Biomedical	838	Vitalcor, Inc.	301
BioStable Science & Engineering	742	Harris Bay	1103	Olympus America, Inc.	717	Weatherby Healthcare	1131
Boston Medical Products, Inc.	935	Hayes Locums	840	On Call Medical Coats	1000	Western Thoracic Surgical Association	1140
Boston Scientific	911	HCA	1007	OncoCytte	541	Wexler Surgical, Inc.	110
C Change Surgical	1010	Heart Hospital Baylor Plano, The	535	Orasoptic	1028	Wolters Kluwer	1124
CardioQuip	925	Heart Valve Society	1138	Our Lady of the Lake Regional Medical Center	1024	Women in Thoracic Surgery	134
Cardiovascular and Thoracic Solutions, LLC	1026	Houston Methodist Hospital - DeBakey CV Education	1125	Oxford University Press	1126	★ Zimmer Biomet Thoracic	217
Centese	536	International Society for Minimally Invasive Cardiothoracic Surgery	1136	Peters Surgical	617	ZipLine Medical, Inc.	1029
CHF Solutions	942	Intuitive Surgical	525	Pinnacle Biologics	135	ZipperBelt	841
CHI Saint Joseph Medical Group	641	IQVIA	101	Presbyterian Healthcare Services	741		
CinVivo	941	JACE Medical	213	Quest Medical, Inc.	309, 310		
ClearFlow	731			R&D Surgical USA, Inc.	836		
				Ronin Surgical Corp.	441		

Listing current as of Jan. 26, 2020.



Exhibit Hall Hours

Monday, January 27: 9:00 a.m. – 4:30 p.m.
Tuesday, January 28: 9:00 a.m. – 1:30 p.m.

Don't Miss...

Career Fair

Meet face-to-face with employers at the STS/CTSNet Career Fair. Recruiters will be available to talk about career opportunities.

E-Posters

Scientific posters are electronic this year, and several monitors are available for viewing.

Learning Lab Theater

Exhibiting companies and others will present talks and demonstrations. See page 8 for a list of presentations.

Show Floor Suites

154	254	255	354	355	454	455	554
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Food & Beverage

Learning Lab

844

Show Floor Suites

853	854	1048	1148	1055	1154	1155	1254
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1265
1263
1261
1259
1257
1255
1253

E-Posters

236

134	135	234	335	GeneSee Biomedical
132	Auris Health 133		432	
Johnson & Johnson Medical Devices Companies 125		LSI Solutions 225		329
		Transonic	Smitec Instrument	426
		325	424	

443	542	OncoCyte	643	742	743	842
441	540	541	641	740	741	840
437	538	The Heart Hospital Baylor Plano	639	736	Medela Healthcare	838
	536	535	637	734	737	836
KLS Martin			Intuitive Surgical		ClearFlow	
431			525		731	
Getinge			725		Med Alliance Solutions	
425					825	

843	942	943	1042	AATS	1142	1143	1242	1243
841	940	941	1040	1039	1138	1141	1240	1241
STS Lounge				1037	1136	1139	1238	1239
835				1035	1134	1137	1236	1237
Terumo				937	1036	1135	1234	1235
825				935	1034	Career Fair		
				931	1030	1031	1130	1131
				929	1028	1029	1128	1129
				927	1026	Kapp Surgical	1126	Houston Methodist
				925	1024	1025	1124	1125

First-Time Exhibitors

Entrance

Wexler Surgical, Inc	LivaNova	Zimmer Biomet Thoracic	Abbott	A & E Medical	Peters Surgical	Fehling Surgical	Olympus America	818	Abiomed Inc	Talis Clinical	CryoLife
110	117	217	414	517	617	716	717	816	817	917	1013
Gore & Associates	Acute Innovations	Quest Medical Inc	Medistim	Rutract/Pemco	BD	Aziyo	Boston Scientific	1012			HCA
113	210	310	511	411	811	910	911	1010			1007
109	208	308	Edwards Lifesciences		AtriCure Inc.		Karl Storz Endoscopy	1008			Berlin Heart Inc.
			401		801		905	1006			1107
							Elsevier	1004			1105
							901	1002			1103
								1000			1101
											Headshot Studio
											1001

STS Booth (#101)

Hear about the latest the Society has to offer, including member benefits, advocacy efforts, educational courses, the STS Research Center, and the next generation STS National Database.



Headshot Studio (#1001)

Have a professional headshot taken for business or personal use, compliments of STS.

Join the Conversation



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#STS2020

Tuesday Program

6:30 a.m. – 1:00 p.m.
Registration
Hall B1 Lobby

9:00 a.m. – 1:30 p.m.
Exhibit Hall
Hall B2

7:00 a.m. – 9:00 a.m.
Adult Cardiac: General
Room 211

Adult Cardiac:
Mitral/Tricuspid Valves
Room 225

Ⓜ Avoiding Practice Extinction:
Staying Relevant with New
Technologies and Techniques
Room 208

Congenital: Pediatric Congenital III
Room 217

General Thoracic: Lung Cancer
Disparities and Innovation
Room 220

General Thoracic:
Mediastinal/Pulmonary
Room 215

Machine Learning in
Prediction of Cardiothoracic
Surgery Outcomes
Room 224

Rescuing the Right Ventricle:
Prevention and Intervention
Room 207

STS/CSCS: Coronary Artery
Bypass Grafting Surgery for the
Pragmatic Idealist
Room 229

9:00 a.m. – 9:30 a.m.
Break—Visit Exhibits and
Scientific Posters
Hall B2

Beyond the Session:
Recent Clinical Trials
and Their Impact on You
E-Poster Theater 1

Beyond the Session:
Training the Thoracic Surgeon
E-Poster Theater 1

9:30 a.m. – 10:45 a.m.
Ⓜ Plenary Session
Great Hall A

9:30 a.m. – 9:45 a.m.
Award Presentations

9:45 a.m. – 10:45 a.m.
C. Walton Lillehei Lecture:
Bartley P. Griffith

11:00 a.m. – 12:00 p.m.
Building a Thoracic Robotics
Program
Room 225

Critical Care Research
Room 211

Health Policy Forum: Navigating
the Merit-Based Incentive
Payment System and Alternative
Payment Models in 2020
Room 215

Meet the Experts: Cardiothoracic
Surgery in the Military
Room 224

see [SCHEDULE](#), page 13

Clark Papers Reveal New Insights on Diaphragm Paralysis, LVRS, Infective Endocarditis

STS National Database data are used for numerous important medical research studies each year that improve cardiothoracic surgical outcomes and enhance the quality of patient care. Three of these studies, selected for the 2020 Annual Meeting, were designated as this year's Richard E. Clark Memorial Papers.

The papers will be featured during specialty-specific scientific sessions on Monday and Tuesday.

Diaphragm Paralysis Leads to Worse Outcomes for Pediatric Patients Following Heart Surgery

A study using data from the STS Congenital Heart Surgery Database showed that pediatric patients who experience diaphragm paralysis after heart surgery have worse outcomes than patients without paralysis.

“Our study is the largest multicenter investigation of diaphragm paralysis after pediatric cardiac surgery and of how this complication is associated with postoperative morbidity and mortality,” said Charles D. Fraser, MD, from The Johns Hopkins Hospital in Baltimore. “Furthermore, ours is the first study to highlight significant center-level variability regarding the practice of diaphragm plication.”

Overall, 2,214 of 191,463 patients (1.2%) in the study experienced diaphragm paralysis: 945 of 43,102 neonates (2.2%), 828 of 67,739 infants (1.2%), and 441 of 80,622 children (0.5%).

Prior single-center studies found that the incidence of diaphragm paralysis after congenital cardiac surgery ranged from 0.3% to 12.8% and was associated with increased respiratory complications, prolonged ventilation, lung infections, prolonged length of stay, and mortality.

“As such, we sought to investigate the true incidence of this complication, as well as the variability in plication practices and the impact plication has on outcomes,” said Dr. Fraser.

Some studies have suggested that delayed diagnosis and delayed plication are associated with higher

rates of lung infections, prolonged ICU length of stay, and mortality, particularly in neonates and infants. However, previous data were limited by small sample sizes and single-center experiences.

In this study, plication was not associated with decreased mortality, morbidity, or shorter hospital stays, and in many categories, it actually was associated with worse outcomes.

Dr. Fraser said the authors were surprised by the significant center-level variability in the use of plication, suggesting that the management of diaphragm paralysis remains a target for quality improvement.

“The next steps likely would include a prospective multicenter study to corroborate these data and better delineate the utility of diaphragm plication,” he said.

Rates of Lung Volume Reduction Surgery Increase while Mortality Rates Decrease

A large, national study using data from the STS General Thoracic Surgery Database found that utilization of lung volume reduction surgery (LVRS) has increased and become safer with lower mortality rates, even at lower-volume hospitals. However, there is regional variation in LVRS use that does not match national prevalence rates of chronic obstructive pulmonary disease.

“Traditionally, Medicare only reimbursed LVRS at three types of hospitals: National Emphysema Treatment Trial participants, transplant centers, and centers certified in LVRS by The Joint Commission,” said Zaid M. Abdelsattar, MD, MS, from the Mayo Clinic in Rochester, Minnesota. “This policy may be responsible for the regional variation in LVRS utilization.”

Interestingly, all centers performing LVRS in this study had similar risk- and reliability-adjusted outcome rates.

“There might be an unintended access disparity, created in part by current reimbursement policy, without much added benefit in the contemporary era,” Dr. Abdelsattar said.



“The epidemiology of endocarditis is really changing due to the opioid epidemic, and surgeons can play a leading role in managing these patients.”

Arnar Geirsson, MD

The study also highlighted the importance of careful patient selection in deciding who undergoes LVRS. “The most consistent risk factor for adverse outcomes is the functional status of the patient,” he added.

Increased Prevalence of Infective Endocarditis Tied to Illicit Drug Use

Another study—this one using data from the STS Adult Cardiac Surgery Database—showed that one-third of valve operations for infective endocarditis (IE) performed in the US are due to illicit drug use (IDU), pointing to a severe manifestation of the opioid epidemic.

Researchers examined nearly 35,000 cases from 1,000 cardiac surgery centers spanning 7 years. Cases were stratified into groups with IDU (11,756) and without (23,149).

“The proportion of valve surgery performed for drug-use-associated endocarditis has increased dramatically, and we observed significant regional variation in the burden of these types of cases, which correlated to opioid epidemic hotspots,” said Arnar Geirsson, MD, from the Yale School of Medicine in New Haven, Connecticut.

Although all cardiac surgery centers have experienced an increase in volume of these cases, the regional variability is quite striking, he added. For example, in some centers within the Appalachian corridor, more than 60% of valve cases performed for endocarditis were drug related.

“The epidemiology of endocarditis is really changing due to the opioid epidemic, and surgeons can play a leading role in managing these patients,” Dr. Geirsson said.

The sheer burden of the cases and the fact that, after risk adjustment, the short-term outcomes—including survival—are worse in patients with drug-use-associated endocarditis are major points of concern.

“The findings of this study hopefully will give surgeons a strong argument to push for and lead multidisciplinary team approaches to these complex cases,” said Dr. Geirsson. “Understanding the burden, as well as the risk, of these cases will provide an opportunity to improve patient safety.”

A multidisciplinary team would include cardiac surgery, infectious disease, cardiology, psychiatry, addiction medicine, and social work, he added. ●

Richard E. Clark Memorial Paper: Congenital

Congenital:
Pediatric Congenital I

Monday
7:00 a.m. – 9:00 a.m.
Room 217

Richard E. Clark Memorial Paper: General Thoracic

General Thoracic:
Lung Transplantation

Monday
1:15 p.m. – 3:15 p.m.
Room 215

Richard E. Clark Memorial Paper: Adult Cardiac

Adult Cardiac: General

Tuesday
7:00 a.m. – 9:00 a.m.
Room 211

LECTURE

continued from page 1

inclination that results in judgment without question. “Implicit bias shapes our decisions and modifies our professional interactions,” said Dr. Yancy. “We all must be willing to think unconventionally and check our assumptions at the door.”

Bias can be overcome with awareness, allyship, and sponsorship. Dr. Yancy noted that everyone can be an ally. “Allyship is a lifelong process of building relationships based on trust, consistency, and accountability with marginalized individuals and/or groups of people. It is an opportunity to grow and learn about ourselves while building confidence in others,” he said.

Sponsorship is the core attribute of allyship. Whereas a mentor can advise and provide perspective on another’s role, career, and situation, a sponsor is the person



who can make someone’s potential career a reality, said Dr. Yancy. “A sponsor believes in you. Sponsors offer serious seniority, power, and influence.”

Dr. Yancy came full circle at the end of his lecture by answering

the question he posed earlier about Vivien Thomas. Rather than telling a story about segregation, discrimination, and bias, said Dr. Yancy, Thomas’s story “is about diversity and inclusion; it is about allyship; it is about sponsorship.” ●

Researchers Meet the Media

On Monday afternoon, the authors of three scientific abstracts will discuss their findings with various media outlets at the STS Press Conference. Scheduled for 12:30 p.m. in Room 204, the press conference will feature:

Discharge 3 Days Following Open Heart Surgery Is Safe

Speaker: S. Chris Malaisrie, MD, Northwestern Medicine in Chicago

Discussant: Daniel T. Engelman, MD, Baystate Medical Center in Springfield, MA

Young Age Does Not Equal Low Risk for Patients Needing Aortic Valve Replacement

Speaker: Jennifer S. Nelson, MD, MS, Nemours Children’s Health System in Orlando, FL

Discussant: Robbin G. Cohen, MD, MMM, University of Southern California in Los Angeles

First-of-its-Kind Technology Lights Up Lung Cancer Cells, Helps Improve Patient Outcomes

Speaker: Inderpal S. Sarkaria, MD, University of Pittsburgh Medical Center in Pennsylvania

Discussant: Linda W. Martin, MD, MPH, University of Virginia in Charlottesville

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STS Annual Meeting

Inspiring Keynote Lectures



Thomas B. Ferguson Lecture M.E.G.A.: Make Evidence Great Again

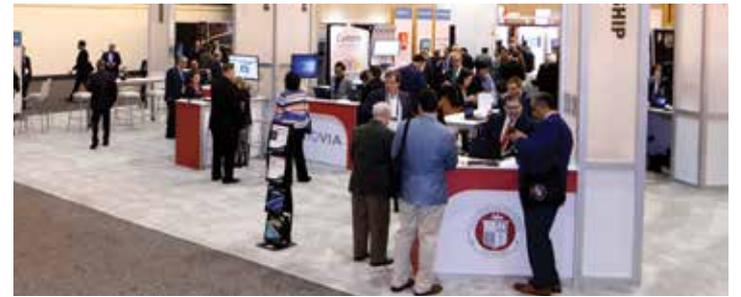
Domenico Pagano, MD, FRCS(C-Th), FETCS
Monday, January 27, 4:00 p.m.

Dr. Pagano is the Secretary General of the European Association for Cardio-Thoracic Surgery. In his talk, he will explore how to “make evidence great again” by challenging the soundness of data that support the practice of evidence-based medicine.

C. Walton Lillehei Lecture Bumper Car Innovation of Heart Pumps and Mechanical Lungs

Bartley P. Griffith, MD
Tuesday, January 28, 9:45 a.m.

Dr. Griffith is the Thomas E. and Alice Marie Hales Distinguished Professor in Transplant Surgery at the University of Maryland School of Medicine in Baltimore. He will speak about the remarkable achievements that have been made in heart pumps and oxygenators and explore possibilities for the future.



Visit STS in the Exhibit Hall

Stop by Booth #101 in the Exhibit Hall and hear about the latest the Society has to offer. You can learn more about member benefits, advocacy efforts (including STS-PAC), upcoming educational courses on extracorporeal membrane oxygenation and robotic thoracic and cardiac surgery, *The Annals of Thoracic Surgery*, the STS Research Center, and the Society's charitable arm, The Thoracic Surgery Foundation.

You also can receive updates on the next generation STS National Database and get a closer look at the new highly secure, interactive, cloud-based dashboards (see page 1 for more details). And if you don't yet participate in the Database, learn why you should join the more than 5,800 surgeons and other physicians who have committed to improving the quality of patient care.

Additionally, STS members can update their contact information and pay 2020 membership dues. Non-members can fill out an application to begin taking advantage of the many benefits of STS membership. ●

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**Get a demonstration at
STS booth #101.**

Q&A with STS President Robert S.D. Higgins



In the past year, STS President Robert S.D. Higgins, MD, MSHA, has led tireless efforts to enhance and expand the Society's activities in many important areas. As his presidential term comes to a close Monday evening, he looks back at the achievements, challenges, and lessons learned—and shares a preview of his Presidential Address, which he will deliver Monday morning at 11:15 in Great Hall A.

“Life isn't about waiting for the storm to pass. It's about learning to dance in the rain. And I think that's been one of the things I have emphasized this past year.”

Robert S.D. Higgins, MD, MSHA



Dr. Higgins (right), pictured here with European Association for Cardio-Thoracic Surgery Secretary General Domenico Pagano, MD, FRCS(C-Th), FESC, said that establishing stronger relationships with colleagues throughout the world has been a key achievement in his year as STS President.

What are you most proud of accomplishing during your year as STS President?

Dr. Higgins: We have been fortunate with the great support of the volunteer leadership and STS staff to craft a vision for the future of the Society. I'm proud that we've been able to enhance the STS National Database, create educational opportunities for young cardiothoracic surgeons, address concerns about physician reimbursement, and work together with our colleagues in Europe and across the country. Our specialty has an impact on some of the most deadly and challenging medical conditions in the Western world—namely, atherosclerotic heart disease and lung cancer. And if we keep our eye on the prize, we will continue to be influential in those diseases, help patients, and benefit society. Honoring our past while also creating a sustainable future has been a source of pride for me this past year.

You've been very involved with the recent enhancements to the STS National Database. Why is this such an important endeavor?

Dr. Higgins: We know that our Database has been the gold standard

for clinical registries over the past 30 years. And yet, we needed to modernize and improve it to meet the demands and needs of our membership. It's pretty clear, though, that with the pressures in the market, we need to stand together as a specialty with one data-driven, cohesive voice to address the concerns that people have about quality and patient safety. If we divide our voice, we lose traction and impact.

What challenges has the specialty encountered during your term?

Dr. Higgins: In addition to modernizing the Database, we again have been trying to build a platform of collaboration across our specialty between our European, Asian, and African colleagues. There's a recognition that many people in our society are not able to benefit from heart and lung surgery, and there are significant disparities in care. Recognizing those disparities and working to fix them is an important aspect of what we should be doing, because it really is about the patient in the final analysis.

We've also dealt with challenges related to public reporting of surgical outcomes, and some of our congenital colleagues have felt that they're under the microscope.

We've been working hard to address their concerns, and we're proud and happy that Joe Dearani, who's a world-renowned pediatric and congenital heart surgeon, is coming in as President. We've also created a task force of leaders from around the country to advise us, and hopefully, that group will improve our ability to provide feedback for patients and families alike and share best practices. I think it's a really positive time for action, and our leadership has stepped up.

How do you want to be remembered in your role as President?

Dr. Higgins: I'm hopeful that people will remember me as someone who listened first, who acted strategically and wisely, and who paved the way for others who have not historically been considered for leadership roles—who showed women and people of color that they have a future in our organization. That would be a cool legacy to leave behind for future generations.

Drawing on your experience as President, what advice would you give to the next generation of STS leaders?

Dr. Higgins: I've learned a lot as a leader, and I hope that I can pass

along some of these lessons to those who will come after me. To our trainees, I would say that they not only have to work hard and have talent, but also have passion, persistence, and grit to accomplish their goals. It's also important to diversify your skillset to adapt to the changing future.

We also have to change our perspective in terms of mentorship and sponsorship. We need to reach out to women and others who have been underrepresented in our specialty and bring them into the fold.

You'll give your Presidential Address on Monday morning. What can attendees expect to hear?

Dr. Higgins: As I thought about my year, I thought about the lifesaving benefits of cardiac and lung cancer surgery over the past 75 years. We are continuing to grow, develop, and save lives—millions of lives—and we respect and admire that. That requires progressive leadership and learning from the past to adapt our leadership for the next generation. This generation has different expectations, and we need to be aware of that.

We also have to keep our eyes on what's really important in our lives. Not so much the day-to-day grind, but rather, developing successful

SCHEDULE

cont. from page 10

11:00 a.m. – 12:00 p.m.
Meet the Experts: Current State of Fetal Cardiac Intervention
Room 217

Quality Improvement in Cardiothoracic Surgery
Room 229

Reoperative Adult Cardiac Surgery
Room 220

STC/CHEST: Optimizing Clinical Care for the Lung Cancer Patient—From Screening to Diagnosis and Treatment
Room 208

STS/SVS: What Would E. Stanley Crawford Think?
Room 207

12:00 p.m. – 1:00 p.m.
Lunch—Visit Exhibits and Scientific Posters
Hall B2

1:00 p.m. – 3:00 p.m.
Adult Cardiac: Aorta II (Thoracic Aortic Aneurysms)
Room 211

Adult Cardiac: Aortic Valve
Room 207

Beyond Burnout: What You Should Know and Do Going Forward
Room 208

General Thoracic: Esophageal
Room 225

Surgical Videos: Adult Cardiac
Room 220

Surgical Videos: Congenital
Room 217

Surgical Videos: General Thoracic
Room 215

This session will be streamed live at sts.org/streamSTS2020.

strategies to not only be satisfied in our work, but happy in our work. In my address, I'll refer to some of the tenets that we have as an organization—inclusion, diversity, teamwork, collaboration, and quality. All of those things need to come together to make you feel happy in the field of cardiothoracic surgery.

I'll offer some advice for people to think about, like looking for humor in life, being a teacher or a leader, learning to cultivate compassion, working in your community, and using coaching when necessary. Those things will make what we do even that much more gratifying. That's the message I'll be trying to get across.

One of the great quotes that I'm going to use in my talk—and there are many of them—says that life isn't about waiting for the storm to pass. It's about learning to dance in the rain. And I think that's been one of the things I have emphasized this past year. ●

Stay Connected Today's Top Tweets



Never never give up! Persistence and resilience pay off in research! Thank you to all who attended our session this morning at #STS2020 @WomenInThoracic #researchsaveslives

@EADavidMD



Did this kiosk owner know we are in town? #STS2020

@STS_CTsurgery



Packed room #STS2020 @STS_CTsurgery on low risk #TAVR session. Great summaries and discussions on TAVR across entire patient spectrum, future of AS treatment, @CTsurgeon training. @Edwards_TAVR @MDT_StructHeart @VinodThourani @GilbertTangMD @OPreventzaMD

@GilbertTangMD

#STS2020

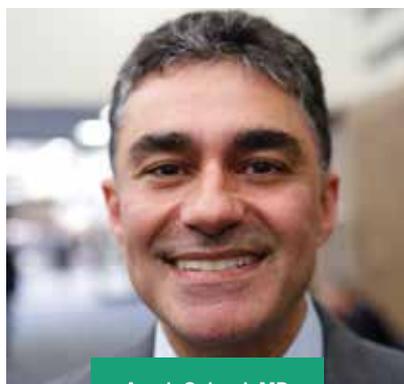
STS 2020 at a Glance



QUESTION

of the day

What has been your favorite session so far?



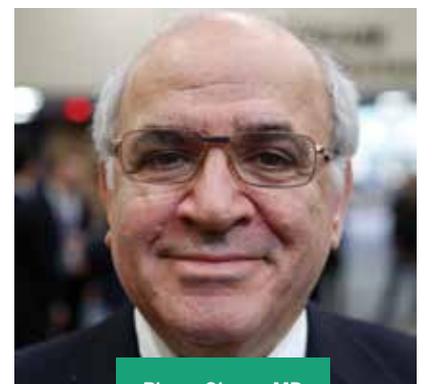
Arash Salemi, MD
Newark, New Jersey

My favorite was the Tech-Con session on machine learning. It was very forward-thinking and will benefit patient care.



Alexis Chidi, MD, PhD
Baltimore, Maryland

My favorite sessions were the Vivien Thomas Symposium on diversity and inclusion, the Women in Thoracic Surgery session, and the Residents Symposium.



Pierre Ghosn, MD
Montreal, Canada

The MyTube session on thoracic surgery and robotic first rib resection presented an innovative and elegant technique. It was impressive.



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