



STS MEETING BULLETIN

THE SOCIETY OF THORACIC SURGEONS 52ND ANNUAL MEETING | JANUARY 23–27, 2016 | PHOENIX, ARIZONA | sts.org

PREVIEW | REGISTER TODAY AT STS.ORG

Visit Arizona by Way of a Local's Perspective

A longtime New Yorker, Andrew H. Goldstein, MD moved 14 years ago to Phoenix, Arizona, where Southwestern art, culture, outdoor activities, entertainment, shopping, and climate combined to make him a Phoenix enthusiast.

Dr. Goldstein, an STS member and cardiothoracic surgeon who attends the STS Annual Meeting regularly, said he likes to show visitors what makes Phoenix and the surrounding area so unique and interesting.

NEARBY SIGHTS

Being away from the office before or after the STS Annual Meeting can be difficult, but attendees easily can get a taste of the region by taking in two Phoenix spots

Dr. Goldstein recommends: the Desert Botanical Garden and the Heard Museum.



Andrew H. Goldstein, MD

Take a stroll through the rare landscape of the Desert Botanical Garden, where more than 50,000 plants

are on display in five thematic trails. The world-class garden, which sits on 140 acres within Papago Park's red rock buttes, is a living collection of plants from the world's deserts. The garden is about a 20-minute drive from the convention center, but it's a big leap into a fascinating environment. Visit www.dbg.org for museum hours and admission rates.

The internationally acclaimed Heard Museum showcases 11 galleries featuring Native American and Southwestern art and culture and beautiful outdoor courtyards with traditional and contemporary art. The

see **PHOENIX**, page 3



Members of the Program Task Force discussed the Annual Meeting program content this past August.

STS 52nd Annual Meeting to Feature New Technology, Lively Debates

For the first time in 30 years, the STS Annual Meeting will be held in Phoenix, Arizona, USA, a city with a sophisticated architectural landscape set against panoramic mountains and stunning desert scenery. The meeting will be January 23–27, 2016, at the Phoenix Convention Center and will offer more interactivity and technology than ever before.

“Attending the meeting will help you see into the future and also stay current on tangible things that you can use in practice today,” said K. Robert Shen, MD, Chair of the Workforce on Annual Meeting. “STS always has been the most inclusive surgical society in our specialty, so the meeting is an excellent opportunity for networking.”

Members of the Workforce on Annual Meeting Program Task Force chose from nearly 1,000 submitted research abstracts and surgical videos to select the best for presentation at the Annual Meeting. The result is an educational program that will stimulate debate, broaden attendees' scope of knowledge, and showcase the leading edge of cardiothoracic surgery technology.

HOT TOPICS ON DECK

For **adult cardiac surgeons**, the coming revolution in transcatheter mitral valve surgery will be a hot topic at the Annual Meeting. Sessions also will cover transcatheter aortic valve procedures, arrhythmia, aortic dissection, heart failure, and left ventricular assist devices. (See related article on page 5.)

“STS and the European Association for Cardio-Thoracic Surgery will be hosting a very potent session on specialized aortic valve-sparing surgery and aortic valve repair,” said STS First Vice President Joseph E. Bavaria, MD, who helped plan the session. “We also have an exciting session on structural heart disease in combination with the American College of Cardiology. This will be a very dynamic portion of the Annual Meeting.”

Sessions geared toward **general thoracic surgeons** will cover breath tests for lung cancer, surveillance after definitive treatment, quality improvement initiatives, and the hybrid operating room.

“The general thoracic surgical symposium on Sunday will be really exciting. We're going to look at advanced techniques in lung cancer resection, a minimally invasive approach to treating thymic tumors, both with and without myasthenia gravis, and how to incorporate quality initiatives into your thoracic surgical practice,” said Leah M. Backhus, MD, Co-Chair of the Surgical Symposia Task Force.

Congenital heart surgeons can look forward to discussions on atrioventricular septal defects, the arterial switch operation, tetralogy of Fallot, and hypoplastic left heart syndrome.

In particular, the congenital surgical symposium on Sunday afternoon will spark conversation regarding several controversial topics. “In the first half, intraoperative videos will be shown to demonstrate different ways of performing complex neonatal operations,”

said Andrew C. Fiore, MD, Co-Chair of the Surgical Symposia Task Force. “The second half will be a debate between surgeons and cardiologists covering three fairly controversial but common problems in pediatric cardiac surgery.”

INTERNATIONAL COLLABORATIONS HIGHLIGHTED

A number of sessions will feature perspectives from international experts. Not only is STS partnering with EACTS, but sessions also have been developed in collaboration with the European Society of Thoracic Surgeons, the Canadian Association of Thoracic Surgeons, and the Canadian Society of Cardiac Surgeons.

The International Symposium & Reception on Monday, January 25, will focus on the viability and ethics of employing new technologies to treat rheumatic heart disease, endocarditis, and mitral valve disease in various parts of the world. (See related article on page 5.)

“Cardiothoracic surgery really is a specialty that traverses all geographies, so most of the meeting content will be germane and appropriate for the entire international community,” Dr. Bavaria said.

For more information and to register for the STS 52nd Annual Meeting, visit www.sts.org/annualmeeting. ■

REGISTER TODAY
sts.org/annualmeeting



STS 52nd Annual Meeting Program

FRIDAY, JANUARY 22

3:00 p.m.–6:00 p.m.

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

SATURDAY, JANUARY 23

7:00 a.m.–6:00 p.m.

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

8:00 a.m.–12:30 p.m.

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

8:00 a.m.–3:00 p.m.

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

12:00 p.m.–6:30 p.m.

STS/AATS Tech-Con Exhibits

1:00 p.m.–2:30 p.m.

Cardiopulmonary Bypass Simulation Course

1:00 p.m.–3:30 p.m.

STS/AATS Tech-Con Adult Cardiac Track I: Mitral Valve Technology

STS/AATS Tech-Con General Thoracic Track I: Lung Surgery of the Future

3:30 p.m.–5:00 p.m.

STS/AATS Tech-Con Adult Cardiac Track II: Heart Failure Technology

STS/AATS Tech-Con General Thoracic Track II: Advances in Robotic Tools and Technology

5:00 p.m.–6:30 p.m.

STS/AATS Tech-Con Reception

SUNDAY, JANUARY 24

7:00 a.m.–6:30 p.m.

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

7:00 a.m.–1:15 p.m.

STS/AATS Tech-Con Exhibits

7:45 a.m.–9:30 a.m.

STS/AATS Tech-Con Adult Cardiac Track III: Aortic Valve and Aortic Disease

STS/AATS Tech-Con General Thoracic Track III: OR of the Future

7:50 a.m.–12:00 p.m.

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

Practice Management Summit

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

10:15 a.m.–12:00 p.m.

STS/AATS Tech-Con Joint Session: "Shark Tank"—Rapid-Fire Elevator Pitches of Revolutionary Technology

1:00 p.m.–4:00 p.m.

Residents Symposium: Transitioning From Residency to a Successful Practice

1:15 p.m.–4:30 p.m.

ACC @ STS

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

Parallel Surgical Symposium: Congenital

Parallel Surgical Symposium: General Thoracic

NEW! Resuscitation of Patients Who Arrest After Cardiac Surgery

2:00 p.m.–6:30 p.m.

Scientific Posters Open

2:30 p.m.–4:30 p.m.

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

4:30 p.m.–6:30 p.m.

Opening Reception in STS Exhibit Hall

MONDAY, JANUARY 25

6:30 a.m.–5:00 p.m.

Registration: STS Annual Meeting

9:00 a.m.–4:30 p.m.

Exhibit Hall

Scientific Posters

7:00 a.m.–7:15 a.m.

Opening Remarks

7:15 a.m.–8:15 a.m.

J. Maxwell Chamberlain Memorial Papers

8:15 a.m.–9:00 a.m.

Richard E. Clark Memorial Papers

9:00 a.m.–9:40 a.m.

BREAK—Visit Exhibits and Scientific Posters

9:40 a.m.–9:50 a.m.

Introduction of the President: Joseph E. Bavaria

9:50 a.m.–10:50 a.m.

Presidential Address: Mark S. Allen

10:50 a.m.–11:30 a.m.

BREAK—Visit Exhibits and Scientific Posters

11:30 a.m.–12:30 p.m.

(8 parallel sessions)

Adult Cardiac Session: Arrhythmia

Basic Science Research: Adult Cardiac

Basic Science Research: General Thoracic

Congenital Session: Adult Congenital

Critical Care

General Thoracic Session: New Technology

Quality Improvement Initiatives in Thoracic Surgery

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

12:30 p.m.–1:30 p.m.

BREAK—Visit Exhibits and Scientific Posters

1:15 p.m.–5:15 p.m.

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

1:30 p.m.–3:30 p.m.

(7 parallel sessions)

Adult Cardiac Session: Aorta I

Adult Cardiac Session: Ischemic

Congenital Session: Pediatric Congenital I



The Scientific Posters will be on display Sunday, January 24, Monday, January 25, and Tuesday, January 26. In addition to the special Monday evening wine reception, poster authors will be available to discuss their work throughout the meeting.

General Thoracic Session: Lung Cancer I—Diagnosis and Staging

General Thoracic Session: Lung Transplantation

SVS @ STS: Sharing Common Ground for Cardiovascular Problems

30th Anniversary Celebration of Women in Thoracic Surgery: Innovations and Contributions of WTS and STS Members

3:30 p.m.–4:15 p.m.

BREAK—Visit Exhibits and Scientific Posters

3:30 p.m.–5:30 p.m.

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

4:15 p.m.–5:15 p.m.

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

5:00 p.m.–6:30 p.m.

Scientific Posters and Wine

5:30 p.m.–6:25 p.m.

Business Meeting (STS Members Only)

6:30 p.m.–7:30 p.m.

STS-PAC Reception

7:00 p.m.–10:30 p.m.

STS Social Event: Corona Ranch

TUESDAY, JANUARY 26

6:30 a.m.–4:30 p.m.

Registration: STS Annual Meeting

9:00 a.m.–3:30 p.m.

Exhibit Hall

9:00 a.m.–5:00 p.m.

Scientific Posters

7:30 a.m.–8:30 a.m.

Early Riser Sessions

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

9:00 a.m.–10:00 a.m.

Thomas B. Ferguson Lecture: Scott Parazynski

10:00 a.m.–10:45 a.m.

BREAK—Visit Exhibits and Scientific Posters

10:45 a.m.–11:00 a.m.

Award Presentations

11:00 a.m.–12:00 p.m.

C. Walton Lillehei Lecture: Gary Taubes

12:00 p.m.–1:00 p.m.

BREAK—Visit Exhibits and Scientific Posters

Ethics Debate: An Advance Directive Limits Postoperative Care—Should Surgeons Accept Limits on Care?

Residents Luncheon

1:00 p.m.–3:00 p.m.

(7 parallel sessions)

Adult Cardiac Session: General

Adult Cardiac Session: Mitral Valve

Congenital Session: Pediatric Congenital II

General Thoracic Session: Esophageal

General Thoracic Session: Lung Cancer II—Treatment

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

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

1:00 p.m.–3:30 p.m.

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

1:00 p.m.–5:30 p.m.

Advanced Therapies for End-Stage Heart Disease

3:00 p.m.–3:30 p.m.

BREAK—Visit Exhibits and Scientific Posters

3:30 p.m.–5:30 p.m.

(7 parallel sessions)

Adult Cardiac Session: Aorta II

Adult Cardiac Session: Aortic Valve

Cardiothoracic Surgical Education

Congenital Session: Pediatric Congenital III

General Thoracic Session: Mediastinal/Pulmonary

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

SCA @ STS: Perioperative Evaluation and Management of Circulatory Shock

WEDNESDAY, JANUARY 27

6:30 a.m.–9:30 a.m.

Registration: STS University

7:00 a.m.–9:00 a.m.

STS University

9:30 a.m.–11:30 a.m.

STS University (courses repeated)

Indicates that a ticket is required to attend.

PHOENIX

continued from page 1

“Frida Kahlo—Her Photos” exhibit will be on display during the Annual Meeting. More than 240 images were culled from the Blue House, the residence where Kahlo spent most of her life. The museum is about a 10-minute drive from the Phoenix Convention Center. Visit www.heard.org for museum hours and admission rates.

A SHORT DRIVE

Old Town Scottsdale: This treasure in the heart of Scottsdale combines Western themed art galleries, kitschy shops, small museums, and an array of restaurants in the city’s downtown. Explore the area by taking one of two walking tours or even both; one features the area’s history and the other focuses on public art. On Thursday evenings, galleries along Main Street and Marshall Way extend their hours until 9:00 p.m. for the Scottsdale ArtWalk. The area is about a 25-minute drive from downtown Phoenix.

Taliesin West: A national historic landmark, Frank Lloyd Wright’s Taliesin West was once Wright’s winter home. Today, it houses the Frank Lloyd Wright Foundation and Taliesin, the Frank Lloyd Wright School of Architecture. Built with nearby stone and sand and set in the foothills of the McDowell Mountains, Taliesin West offers tours of this desert masterpiece. Located outside Scottsdale, Taliesin West is about a 40-minute drive from the convention center. Visit www.franklloydwright.org/taliesin-west/plan-a-visit.html for museum hours and admission rates. Advance booking for tours is recommended.

HIKING TRAILS

For outdoor adventurers, Dr. Goldstein recommends blazing a trail on foot.

“We have two of the best urban hikes in America at Camelback Mountain and Piestewa Peak,” he said. “Camelback dominates the landscape because its red rock formation looks like a camel sitting down.”

He recommended that of the two trailheads, hikers take Echo Canyon, which ascends 1,400 feet to the 2,680-foot summit. The 1–3 hour round-trip hike is 2.2 miles. The trailhead is about a 25-minute drive from the convention center.

The popular Piestewa Peak trailhead, which is a few minutes drive closer, is a 1,100-foot moderate 2-mile round-trip hike, which runs 1–3 hours.

Dr. Goldstein cautioned that hikers should

be in good physical shape and ready for the elements.

“Camelback Mountain trail is a phenomenal hike, but you need to be a fit and experienced hiker because it is a moderately strenuous hike,” he said. “Although in late January, the days can be sunny and temperatures in the 70s and 80s, nights in the desert in winter get very cold and go into the mid-30s or lower. For any outdoor activity, you need to be prepared. If you do any hiking, you should bring water because the air is so dry.”

TEE UP FOR A ROUND OF GOLF

With metro Phoenix home to nearly 200 pristine public and private golf courses boasting 3,600 holes, the region is the indisputable mecca for golf enthusiasts. Lush greens designed by Robert Trent Jones Jr., Jack Nicklaus, Tom Weiskopf, and others beckon amateurs and wannabe professionals.

Desert foothills, surrounding mountains, and mild January temperatures combine to draw PGA, LPGA, and other championship events to this aptly named Valley of the Sun.

Those looking to hit the links amid this stunning landscape should book tee times in advance, especially since January kicks off prime golfing season. Course rates vary by green fees and tee times. To order a free *Arizona Golf Guide*, visit www.visitphoenix.com/forms/travel_guide_request.aspx.

DAY TRIPS

If you have time to spare before or after the Annual Meeting, take the opportunity to see two of Arizona’s most stunning destinations—Sedona and Grand Canyon National Park.

Sedona, a 2–2.5 hour drive from Phoenix, welcomes visitors with spectacular red rock monoliths. A haven for art lovers and collectors, Sedona’s more than 80 boutiques, art galleries,

and shops take their inspiration from Native American and Southwestern culture.

For those who have more time, drive north from Sedona 1.5 hours past Flagstaff to the South Rim Grand Canyon, regarded as one of the Natural Seven Wonders of the World. At 18 miles wide and 1 mile deep, the Grand Canyon’s amazing canyon wall vistas display a vast palette of colors etched over millennia by the path of the Colorado River.

Dr. Goldstein said travelers should check road conditions before venturing beyond Phoenix because there can be freezing rain or snowfall in Sedona and the Grand Canyon, which could close roads to the South Rim.

“Visit the website (www.nps.gov/grca/index.htm) to make sure the roads are open,” he said. “If they are open, then you may have the good fortune of seeing the Grand Canyon with a dusting of snow, which most people don’t get to see.” ■



Tech-Con 2016 will feature an increased emphasis on new technology in the pipeline.

Tech-Con Amps Up the Wow Factor

When STS/AATS Tech-Con was introduced in 2002, its goal was to provide a platform for presenting innovative techniques, concepts, and devices for cardiothoracic surgery. In short, Tech-Con was conceived with the wow factor in mind. Fourteen years later, the Tech-Con Task Force has come up with new ways to provide the wow factor.

Beginning in 2016, Tech Con will focus on new devices and procedures that have yet to be approved by the US Food and Drug Administration, but could be available (with FDA approval) within 1–3 years from the time of presentation.

“We thought that this time frame allows industry to introduce near-ready products so that surgeons can begin to prepare,” said Tech-Con Task Force Co-Chair Shanda H. Blackmon, MD, MPH. “The advantage of

this approach is that it will not overlap with what we are seeing at the main STS Annual Meeting.”

Despite the expanding focus on not-yet-released technology, Tech-Con will still feature information that attendees immediately can put into action.

“We still want the audience to go home with something they can use tomorrow in their next case,” said Tech-Con Task Force Co-Chair Gorav Ailawadi, MD. “A part of the program will certainly still focus on techniques or devices that are available now, but are not yet adopted by all cardiothoracic surgeons.”

Proposals for presentation topics were accepted this past summer. For the first time, anyone involved in the field of cardiothoracic surgery—including surgeons, allied health care professionals, engineers, and industry representatives—could submit a proposal.

“One of the most exciting parts of Tech-Con will be the ‘Shark Tank’ session. Inventors will give a brief elevator pitch about their technology, and a panel of experts will critique the ideas,” Dr. Ailawadi said.

The presentations will cover the newest robotic, haptic, and stapling technology, plus minimally invasive access procedures.

“Specifically in the general thoracic sessions, we’ll feature new ways to treat lung cancer, potentially using percutaneous access to ablate tumors in a way that’s never been done before,” said Dr. Blackmon.

STS/AATS Tech-Con will be held January 23–24, 2016, in conjunction with the STS 52nd Annual Meeting in Phoenix, Arizona. You can register today at www.sts.org/annualmeeting. Continuing medical education credit will not be offered for Tech-Con programming. ■

STS MEETING BULLETIN

JANUARY 23–27, 2016

THE OFFICIAL NEWSPAPER OF THE STS 52ND ANNUAL MEETING

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Register Today

Registration and housing for the STS 52nd Annual Meeting are available at www.sts.org/annualmeeting. You must register by January 4, 2016, to reserve housing at the special Annual Meeting rate. New this year, the registration process has been simplified.

- Annual Meeting registration provides access to the Opening Reception on Sunday, January 24, and all educational sessions on Monday, January 25, and Tuesday, January 26, with the exception of the International Symposium (Monday) and Ethics Debate (Tuesday). The Monday night social event and STS University (Wednesday, January 27) also are priced separately.
- Tech-Con registration provides access to all STS/AATS Tech-Con 2016 educational sessions on Saturday, January 23, and Sunday, January 24.
- The new Weekend Pass provides access to all educational sessions on Saturday, January 23, and Sunday, January 24, other than Tech-Con. (You must register for the Annual Meeting in order to register for a Weekend Pass.)

Cardiothoracic surgeons who are not STS members but who submitted completed application materials for Active or International Membership by the October 15, 2015, deadline can register for the meeting at a reduced rate.

For more information about registration, visit www.sts.org/annualmeeting or contact the Society's official registration partner, Experient, at (800) 424-5249 (toll free), 00-1-847-996-5829 (for international callers), or sts@experient-inc.com. ■

Quality and Value Are Crucial for CT ICUs

To say that Kevin W. Lobdell, MD has a patient-centered approach is an understatement. As Director of Quality for the Sanger Heart & Vascular Institute at Carolinas HealthCare System in Charlotte, N.C., he and his team rely on quality measures to make comprehensive performance management improvements in cardiothoracic critical care.

"Let's agree that much has been organized around health care workers, as opposed to our patients. It never occurred to me that care wouldn't be patient-centered. I kind of coined the term PCTR—patient-centered transformational redesign—in our work

here. We're looking to do things that will transform the quality and value of medicine, and inherent in all of that is a redesign," said Dr. Lobdell, who is a co-moderator of

the STS/AATS Critical Care Symposium: Quality and Value in the CT ICU, which will be held from 7:50 a.m. to 12:00 p.m. on Sunday, January 24.

The session will focus on the role of postoperative quality and value improvement initiatives in reducing morbidity and mortality, as well as leveraging expertise with telehealth solutions, hospital-acquired infections (HAIs), mechanical ventilation, and advanced life support.

"We broke the session down by phases of care and things that we could do to assess and mitigate risk. Then we went by body systems, so we looked at it from different

directions," said Dr. Lobdell, Clinical Professor of Surgery at the University of North Carolina-Chapel Hill. "We even looked at registration data and feedback to



Kevin W. Lobdell, MD

make sure that our offering not only was current and respectful of what's been done in the past, but also one that would allow us to improve on how we present these topics."

A member of both the STS Workforce on Critical Care and Workforce on Patient Safety, he will begin the program by describing the principles and potential impact—both positive and negative—of quality and value. This will flow into a discussion on the use of the tele-ICU to transform critical care. Formal ICU telemedicine programs now support 11% of non-federal hospitalized critically ill adult patients, according to a November 2014 article in *Critical Care Medicine*.

"We'll emphasize how tele-ICUs improve the quality of care and have a financial impact," Dr. Lobdell said.

In addition to a presentation on the effect of HAIs on quality and value, attendees will learn about the Hospital Microbiome, which aims to collect microbial samples from surfaces, air, staff, and patients at The University of Chicago's new Center for Care and Discovery.

"This cutting-edge work will provide a comprehensive view of the hospital environment, its practices, and how that system either fosters or prevents infections," Dr. Lobdell said.

After an overview of cardiac surgery unit-advanced life support (CSU-ALS), speakers will describe the role of physician assistants and implementation in a CT ICU. In use in Europe, CSU-ALS is a set of protocols for patients suffering cardiac arrest and all common serious complications in an ICU or on a cardiac surgery unit. (See related article on page 7.)

The session will conclude with four presentations about prolonged ventilation.

"We track five major complications: stroke, reoperation, prolonged ventilation, deep sternal infection, and acute renal failure," Dr. Lobdell said. "We thought that

“This cutting-edge work will provide a comprehensive view of the hospital environment, its practices, and how that system either fosters or prevents infections.”

KEVIN W. LOBDELL, MD

given the impact of prolonged ventilation on the quality and the value of our efforts, it was worth spending a section of this session on this topic."

Speakers will share expertise on the ventilator bundle, prevention of prolonged ventilation, timing of

tracheostomy, and extracorporeal membrane oxygenation.

Dr. Lobdell encouraged those who have roles in the evolving multidisciplinary cardiothoracic critical care team to attend the Critical Care Symposium, noting that they will leave with important information on quality and value. ■

ANNUAL MEETING NEWS AND NOTES

WHAT'S NEW

- Tech-Con will offer insight on new devices and procedures that are not yet approved by the FDA.
- A Weekend Pass is available so that attendees can sample the wide variety of weekend courses.
- Tuesday's Early Riser Sessions no longer require a separate fee.
- STS 52nd Annual Meeting Online is included with meeting registration.
- Two new educational sessions will be held on Sunday—a "how to" session featuring intraoperative videos and a session about the resuscitation of patients who arrest after cardiac surgery.
- Breaktime learning opportunities in the Exhibit Hall include an international Jeopardy! championship and tutorials from *The Annals of Thoracic Surgery* staff.

REGISTER FOR THE STS/CTSNET CAREER FAIR

Take advantage of the opportunity to meet face-to-face with top employers at the STS

52nd Annual Meeting. At the STS/CTSNet Career Fair, recruiters will be available to talk with you about career opportunities.

Maximize your exposure by posting your CV to the candidate database prior to the meeting. Participating employers will be able to view your CV in advance of the event and may schedule an appointment with you for an in-person interview to take place during the meeting. You can find more information about how to register at www.sts.org/careerfair.

The Career Fair will be open during all Exhibit Hall hours.

INTERNATIONAL ATTENDEES: REQUEST A LETTER OF INVITATION

If you need a personalized letter of invitation, please visit www.sts.org/annualmeeting and complete the Visa Invitation Letter Request



Form. Once you have completed the request form, STS will e-mail a personalized letter of invitation to you within 1 business

week. Please note: STS cannot promise that you or your colleagues will receive a visa, nor can it change the decision of any governmental agency should your application be denied.

APPLY TODAY TO BECOME AN STS MEMBER

STS membership comes with a wide range of benefits, including complimentary subscriptions to *The Annals of Thoracic Surgery*, the quarterly newsletter *STS News*, and more. Additionally, STS members receive reduced registration for the STS Annual Meeting and many other educational events throughout the year, and surgeon members qualify for discounted participation fees in the STS National Database.

Anyone with an interest in cardiothoracic surgery can become a member. Visit www.sts.org/apply and fill out the application that best fits your role. If you are a member and know someone who has not yet joined, encourage them to apply! By promoting membership in STS, you'll help your colleagues, the Society, and the specialty. ■

Expand Your Knowledge in the Exhibit Hall

The STS Annual Meeting Exhibit Hall is the place to learn about the latest medical devices and therapies. It is here where you can compare products and services, as well as meet with representatives from more than 100 companies and organizations.

SUNDAY, JANUARY 24

4:30 p.m.–6:30 p.m.
Opening Reception

MONDAY, JANUARY 25

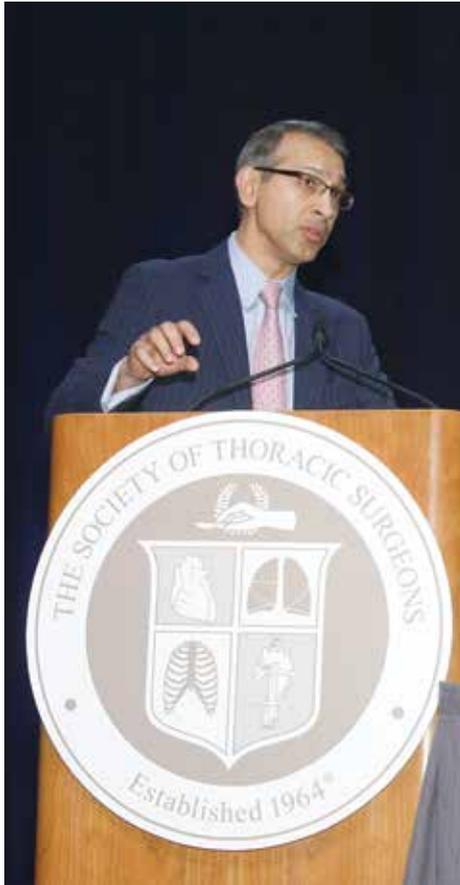
9:00 a.m.–4:30 p.m.

TUESDAY, JANUARY 26

9:00 a.m.–3:30 p.m.

REGISTER TODAY
sts.org/annualmeeting

TAVR for Low-Risk Patients to be Discussed at STS/ACC Session



Vinod H. Thourani, MD

The potential for transcatheter aortic valve replacement (TAVR) in low-risk patients is quickly becoming a hot topic for cardiothoracic surgeons and cardiologists. The issue will be debated during a joint STS and American College of Cardiology session at the STS 52nd Annual Meeting. STS Past President Michael J. Mack, MD will go head-to-head with ACC Past President David R. Holmes Jr., MD on this timely topic.

“Right now, TAVR can be performed safely and effectively on medium- and high-risk patients. Some are now questioning the use of TAVR for low-risk patients,” said Vinod H. Thourani, MD, co-moderator of ACC @ STS, which will be presented from 1:15 p.m. to 4:30 p.m. on Sunday, January 24. “Quite honestly, surgeons are concerned that the management of aortic stenosis may leave the decision-making of surgeons in the hands of cardiologists. The question remains: What role will surgeons have? This debate, by two icons in our specialty, is not to be missed.”

ACC @ STS
Sunday, January 24
1:15 p.m.–4:30 p.m.
Room 120D

The session also will illustrate the importance of the heart team in the management of patients with aortic valve disease, coronary artery disease, and mitral regurgitation.

“We see these patients on a daily basis, and they can do well through the coordinated efforts of a cardiovascular team—a true heart team approach—instead of with a surgeon or cardiologist alone,” said Dr. Thourani, Professor of Surgery and Medicine at Emory University School of Medicine, Co-Director of the Structural Heart and Valve Center at the Emory Heart and Vascular Center, and Chief of Cardiothoracic Surgery at Emory University Hospital Midtown in Atlanta.

Throughout the session, some of the world’s most well-known and thoughtful cardiothoracic surgeons and cardiologists will share their insights, technical videos, literature reviews, data-driven guidelines, and case examples.

“Right now, TAVR can be performed safely and effectively on medium- and high-risk patients. Some are now questioning the use of TAVR for low-risk patients.”

VINOD H. THOURANI, MD

An update on research from the STS/ACC Transcatheter Valve Therapy (TVT) Registry™ will be provided. The TVT Registry is releasing its baseline outcomes report in *The Annals of Thoracic Surgery*.

A follow-up report on the National Institutes of Health Cardiothoracic Surgical Trials Network Moderate and Severe Ischemic Mitral Regurgitation Trials also will be featured. Michael A. Acker, MD will explain how to best manage these patients, based on the results of these highly contested and controversial trials. “Surgeons continue to struggle with the appropriate therapy for replacement in patients

with severe ischemic mitral regurgitation or coronary bypass alone for those with moderate ischemic mitral regurgitation,” Dr. Thourani said. “The entire ACC @ STS session is unique in that attendees will learn about some of the most perplexing, yet commonly encountered patient situations from world-class cardiologists and surgeons alike.” ■

Symposium Delves Into Ethics of Device Testing in Developing Countries

Before new devices are released on the US market, they oftentimes undergo testing in developing countries. Because the devices are too costly to purchase and maintain, these countries cannot ultimately afford to use them.

A panel of experts will tackle the device-testing process during the International Symposium: The Ethics and Practicality of Using New Technologies to Treat Cardiothoracic Diseases in Different Parts of the World, which will be from 3:30 p.m. to 5:30 p.m. on Monday, January 25.

“Medical ethics committees are less stringent in developing countries, so it’s easy to go there, test devices, come back, and report that you had good results,” said A. Pieter Kappetein, MD, PhD, who will moderate this ticketed symposium, which will be followed by a reception.

During a panel discussion, Dr. Kappetein and international faculty from various specialties, including cardiothoracic surgery and medical ethics, will debate the ethics of testing devices in countries where the technology likely will not be dispersed.

“Some may argue that these countries, which otherwise don’t have access to such medical treatment, at least now have some treatment,” said Dr. Kappetein, who is a Professor of Cardiothoracic Surgery at Erasmus Medical Center in Rotterdam, The Netherlands. “It’s an ethical debate, especially when unsuccessful results are not reported.

“You have to move the field forward, but when is the time right, when do you have enough evidence that you can do this, and which patient population should participate?”

The panel will respond to these questions with regard to new technologies for mitral valve disease, including transcatheter mitral valve repair and replacement devices. Symposium speakers also will talk about other evolving treatment approaches for mitral valve disease, endocarditis, and rheumatic heart disease in relation to their viability for use in treating cardiothoracic diseases in underdeveloped parts of the world.

During an examination of the modern era



A. Pieter Kappetein, MD, PhD

of endocarditis treatments, presenters will share emerging trends in infective endocarditis and different treatment approaches in Japan and South Korea.

Dr. Kappetein, an STS International Director and Secretary General of the European Association for Cardio-Thoracic Surgery, said one speaker will discuss a trial out of Korea, which compared operating early on patients and use of conventional treatment on patients who had infective endocarditis.

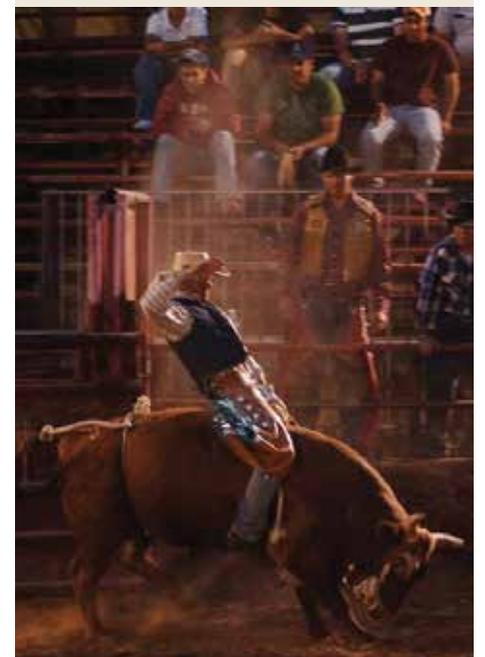
“Whether you should operate early or not is always a question. If you wait a little while and give patients antibiotics, your repair may last longer,” Dr. Kappetein said. “On the other hand, if you wait too long, the patient may deteriorate and be more difficult to repair.”

One presentation, Rheumatic Heart Disease: Between a Rock and a Heart Place, is a play on words for the hard calcium found in the mitral ring of patients with rheumatic valve disease, but this serious discussion will highlight the challenges of repairing and replacing the mitral valve. Although rare in the United States, rheumatic heart disease is prevalent in sub-Saharan Africa, Asia, and other developing countries.

“We can exchange information and learn from others in developing countries. In Asia, where much of the population has rheumatic heart disease, they have developed treatment techniques,” Dr. Kappetein said. “We always like to cover a technique in cardiothoracic surgery that is of interest to many people all over the world.” ■

Attend the STS Social Event

Join your colleagues for an evening of mariachi music, delicious food, and ice-cold margaritas at Corona Ranch on Monday, January 25, from 7:00 p.m. to 10:30 p.m. You can compete against fellow attendees in “cowboy games” and get a front-row seat for an exciting rodeo that will incorporate bronco and bull riding, high-speed horse maneuvers, and trick roping. Don’t miss this opportunity to relax and have fun in an Old Mexico environment. Purchase a ticket when you register for the Annual Meeting at www.sts.org/annualmeeting. ■



**INTERNATIONAL SYMPOSIUM:
 THE ETHICS AND PRACTICALITY
 OF USING NEW TECHNOLOGIES
 TO TREAT CARDIOTHORACIC
 DISEASES IN DIFFERENT PARTS
 OF THE WORLD**

Monday, January 25

3:30 p.m.–5:30 p.m.

Room 224

Note: This session requires purchase of a separate ticket.

STS University Offers More Hands-On Learning than Ever Before

The popular STS University will expand in 2016 to include 14 hands-on courses. Attendees will be able to gain experience with a wide variety of cardiothoracic surgical procedures and familiarize themselves with the latest technology in the field. STS U courses will be offered on Wednesday, January 27, from 7:00 a.m. to 9:00 a.m. and again from 9:30 a.m. to 11:30 a.m. Pick two when you register for the Annual Meeting at www.sts.org/annualmeeting.

STS University features only hands-on learning, and didactic lectures are provided in advance. View the materials for the courses of your choice at www.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
- Course 5: Aortic Root Enlarging Procedures
- Course 6: ICU/ECHO
- Course 7: VATS Lobectomy
- Course 8: Advanced Open Esophageal and Tracheal Procedures
- Course 9: Chest Wall Resection and Adult Pectus Surgery
- Course 10: Atrial Fibrillation (Maze Procedure)
- Course 11: Aortic Valve Leaflet Reconstruction
- Course 12: Advanced Aerodigestive Endoscopy
- Course 13: Adult Congenital Pulmonary Valve Replacement
- Course 14: TSDA Cardiac Surgery Simulation Curriculum*

*This course runs from 7:00 a.m. to 10:30 a.m. ■



Attendees will have the opportunity to practice a variety of cardiothoracic surgical procedures.

Glean Tips to Simplify Cardiac Surgery Procedures

While unusual cases are interesting, most cardiothoracic surgeons will never see those operations. A new how-to session at the STS 52nd Annual Meeting will focus specifically on common operations to help surgeons improve their techniques, become more efficient, and optimize outcomes.

"This session is about providing a broad overview of the more challenging things we could see in the relatively common operations we face every day," said moderator Gorav Ailawadi, MD, Chief of the Section of Adult Cardiac Surgery and Associate Professor of Surgery at the University of Virginia in Charlottesville. "Surgeons may think, 'I'd like to do this operation, but it's been a while, and I just don't feel that comfortable doing it.' This session will help them overcome that."

During the session, How To: Technical Tricks and Pitfalls to Simplify Cardiac Surgery Procedures, expert faculty will share their tried-and-true tips during 21 presentations focused on four common adult cardiac areas: coronary artery bypass grafting (CABG) surgery, mitral valve surgery, aortic valve surgery, and aortic surgery. The session will be from 1:15 p.m. to 4:30 p.m. on Sunday, January 24.

"Our specialty is heavily based on technical skills, and every surgeon has some tricks they use to make their operations

easier. The reality is we all do these operations, and we might do them differently. If attendees can learn one or two tricks from each talk, then that will lead to better outcomes. That's a win in my mind," Dr. Ailawadi said.



Gorav Ailawadi, MD

Presenters will only have one data slide each, and they will share their best tips while highlighting pitfalls to avoid via high-quality videos in their 8-minute presentations.

Among the three CABG presentations is one on minimally invasive CABG. Although not a new procedure, Dr. Ailawadi said minimally invasive CABG has not been

“The reality is we all do these operations, and we might do them differently. If attendees can learn one or two tricks from each talk, then that will lead to better outcomes. That’s a win in my mind.”

GORAV AILAWADI, MD

adopted by many surgeons. Other CABG talks will cover skeletonized internal mammary artery harvest and total arterial CABG, as surgeons have been criticized for not performing enough arterial bypass beyond just the left internal mammary artery.

The mitral valve section of the session will offer guidance in several areas, including anterior and bileaflet prolapse repair, as well as exposure tips in challenging patients. "The goal of the mitral sessions is to encourage more widespread adoption of mitral surgery and make it easier to do

difficult repairs, as well as total chordal preservation replacement," Dr. Ailawadi said. The aortic valve surgery presentations will give attendees tips to follow when performing newer procedures, including sutureless aortic valve replacement, which he said is expected to receive approval from the US Food and Drug Administration in the winter or spring.

"It's possible that by the time of the STS Annual Meeting, at least one of the sutureless valves might be approved," Dr. Ailawadi said. "The idea here is to give everyone exposure to how do this so that when it becomes approved, they'll at least understand what this is all about."

The afternoon will wrap up with a focus on aortic surgery, including repair of type A dissections.

"These typically are not done in elective settings, and you need to know how to fix them safely," Dr. Ailawadi said. "I think most surgeons feel comfortable with this repair, but there are always tricks to be gained from experts."

Other aortic surgery speakers will tackle more complex valve-sparing root replacement and Bentall with stented bioprosthetic valve.

"These operations are done a little more selectively, but we certainly want all surgeons to have exposure to them and feel comfortable doing them on their own," Dr. Ailawadi said. ■

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HOW TO: TECHNICAL TRICKS AND PITFALLS TO SIMPLIFY CARDIAC SURGERY PROCEDURES

Sunday, January 24

1:15 p.m.–4:30 p.m.

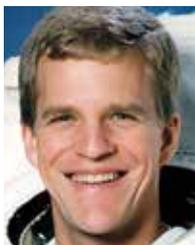
Room 131ABC

Hear Two Inspiring Guest Lectures

FERGUSON LECTURE TO FEATURE FORMER NASA ASTRONAUT

Scott Parazynski's career has taken him from the emergency room, to the summit of Mount Everest, and even to outer space. In January, he will share the lessons he's learned with Annual Meeting attendees as the 2016 Thomas B. Ferguson lecturer. His talk is titled *The Requisite Innovator's Mindset: Open-Mindedness and the Relentless Hunt for Problems in Need of Fixing*.

Dr. Parazynski was 22 months into an emergency medicine residency in Denver when he was selected for the NASA astronaut corps. He flew a total of five space shuttle missions and conducted seven spacewalks, logging more than 1,381 hours (over 8 weeks) in space. He's



Scott Parazynski, MD

also summited Mount Everest and invented a number of medical devices and other technologies for life in extreme environments.

"Scott is a Professor of Practice and University Explorer at Arizona State University, and I think you'll find his outlook on life and his idea of leadership and creativity very interesting," said STS President Mark S. Allen, MD. "He has quite a vision for how space will be developed over the next several years, which should make for a fascinating talk."

The Ferguson Lecture will take place at 9:00 a.m. on Tuesday, January 26, 2016, at the Phoenix Convention Center.

ACCLAIMED SCIENCE JOURNALIST TO GIVE LILLEHEI LECTURE

The 2016 C. Walton Lillehei lecturer will be Gary Taubes, an award-winning science journalist who has shaken up the status quo and challenged conventional wisdom regarding diet, weight gain, and heart disease with his

New York Times-bestselling books *Good Calories, Bad Calories* and *Why We Get Fat*.

Taubes' hypothesis is that the "low fat equals good health" dogma is not supported by scientific research and that high-carbohydrate diets contribute to cardiovascular disease and obesity.

"He has excellent ideas about how we should study this, and it will definitely open up your mind about what you're eating, as well as help us communicate that to our patients," Dr. Allen said.

Don't miss the C. Walton Lillehei Lecture, *Why We Get Fat*, at 11:00 a.m. on Tuesday, January 26, 2016, at the Phoenix Convention Center.

For more information on this speaker, please visit www.prhspeakers.com. ■



Gary Taubes

REGISTER TODAY
sts.org/annualmeeting

New Protocol Increases Postoperative Survival Rates After Cardiac Arrest

Jill Ley, RN, MS set out to increase survival for cardiac surgery patients who experience a cardiac arrest while in an ICU. By implementing a new protocol, she helped reduce mortality rates from cardiac arrest by nearly half at California Pacific Medical Center in San Francisco.

Ley had witnessed how Advanced Cardiac Life Support (ACLS)—while the gold standard for emergency responders—has significant shortcomings after cardiac surgery, including a greater risk of mortality and morbidity. To combat this issue, she learned about Cardiac Surgery Unit-Advanced Life Support (CSU-ALS), a European protocol that provides an evidence-based approach

for the management of cardiac arrest after cardiac surgery.

“Jill came over and saw our course on CSU-ALS. After she implemented the protocol, mortality rates from arrest fell from 65% to 35% at her institution,” said Joel Dunning, PhD, FRCS, Consultant Cardiothoracic Surgeon at James Cook University Hospital in Middlesbrough, United Kingdom, who developed CSU-ALS with his colleagues. Their protocol was adopted by the European Resuscitation Council in 2010 after several years of in-depth review.

LEARN ABOUT CSU-ALS

Dr. Dunning will be the moderator and Ley will be among several speakers at a new hands-on session, Resuscitation of Patients Who Arrest After Cardiac Surgery, which will be held from 1:15 p.m. to 4:30 p.m. on Sunday, January 24. Attendees will learn how this method of resuscitating postoperative cardiac surgery patients can rapidly reverse the causes of arrest.

Faculty members, including cardiothoracic surgeons, an anesthesiologist,

RESUSCITATION OF PATIENTS WHO ARREST AFTER CARDIAC SURGERY

Sunday, January 24
1:15 p.m.–4:30 p.m.
Room 125AB
Note: This course has limited attendance.



The Cardiac Surgery Unit-Advanced Life Support course gives participants the opportunity to train on a manikin as a group.

CARDIAC ARREST

assess rhythm

ventricular fibrillation or tachycardia

DC shock (3 attempts)

asystole or severe bradycardia

pace (if wires available)

pulseless electrical activity

start basic life support

amiodarone 300mg via central venous line

consider external pacing

if paced, turn off pacing to exclude underlying VF

prepare for emergency re sternotomy

continue CPR with single DC shock every 2 minutes until re sternotomy

continue CPR until re sternotomy

continue CPR until re sternotomy

airway and ventilation

- If ventilated turn FiO₂ to 100% and switch off PEEP.
- Change to bag/valve with 100% O₂, verify ET tube position and cuff inflation and listen for breath sounds bilaterally to exclude a pneumothorax or hemothorax.
- If tension pneumothorax suspected, immediately place large bore cannula in the 2nd rib space anterior mid-clavicular line.

DO NOT GIVE EPINEPHRINE unless a senior doctor advises this.

If an IABP is in place change to pressure trigger.

Do not delay basic life support for defibrillation or pacing for more than one minute.

This image illustrates a proposed protocol for Cardiac Surgery Unit-Advanced Life Support for the management of patients who arrest after cardiac surgery.

and a physician’s assistant, will cover how to perform an emergency re sternotomy using a team-based approach, internal massage, emergency pacing, standardized equipment, and medication strategies, which are targeted to achieve optimal survival in this population. Attendees will have the opportunity to participate in simulated arrest scenarios using re sternotomy manikins. The session will conclude with information on how to implement the resuscitation protocols and how to become an instructor.

“I originally went to the United Kingdom to learn about the protocol and bring it back to my own center. It became clear that this was a much bigger initiative. I realized what a tremendous opportunity we have to save lives in the United States,” said Ley, Clinical Nurse Specialist in Surgical Services at California Pacific Medical Center.



Joel Dunning, PhD, FRCS

Also, what may appear to be pulseless electrical activity may rather be a function of the patient’s pacemaker responding to an underlying ventricular fibrillation, which is not addressed in ACLS, but is in CSU-ALS. The protocol also includes information on how to gown and glove quickly, as well as how to mobilize and work as a team.

The protocol calls for a person trained in CSU-ALS, who could be a physician’s assistant or a nurse practitioner, to be available 24 hours a day.



Jill Ley, RN, MS

“The first steps of reopening the chest are straightforward, and, if practiced on a manikin simulation, can be performed safely,” Dr. Dunning said. “In the United Kingdom, at least three nurses have opened a chest with successful outcomes.”

Manikins like the one session attendees will practice on have been sent to about 50 institutions throughout the United States.

“The need is not in the 20% of large units; it is in the 80% of small units, where patients are going to mixed critical care units instead of specialized cardiac intensive care units,” he said.

Knowing that cardiac arrests typically happen within the first few hours after cardiac surgery, when patients are still in the ICU, Ley said she is grateful for this protocol.

“Why would we call on a protocol designed for people on the street when we have completely different patients, environments, and resources when these cardiac events occur,” she said. “People who have cardiac surgery are vulnerable to these events, but with this protocol, we can respond with the most evidence-based approach that is going to give us good outcomes.” ■

PROTOCOL GOES BEYOND ACLS

ACLS has a number of limitations when responding to patients who experience postoperative cardiac arrest after a major cardiac operation.

“For two of the three most common causes of arrest—tamponade and hypovolemia—the use of external cardiac massage as done with ACLS is ineffective. For both of these causes, the only treatment is to reopen the chest so you can fix the problem in about 5 minutes. Otherwise, the patient is going to have irreversible brain damage,” said Dr. Dunning, adding that ACLS also doesn’t address individuals with temporary pacing wires, endotracheal tubes, ventricular assist devices, and infusions.



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