

The image is a composite. The foreground shows a close-up of a surgeon wearing a white surgical cap, a white face mask, and white gloves. The surgeon is holding a long, thin surgical instrument. The background is a grayscale image of a laboratory or research setting where several people in white lab coats are gathered around a piece of equipment, possibly a microscope or a specialized instrument, looking at it with interest.

2015 Annual Report

Michael E. DeBakey Department of Surgery
The Pursuit of Excellence is Our Objective

Baylor
College of
Medicine

Department at a Glance

Organization

11 Divisions

- Abdominal Transplantation
- Cardiac Transplantation & Circulatory Support
- Cardiothoracic Surgery
- Congenital Heart Surgery
- General Surgery
- General Thoracic Surgery
- Pediatric Surgery
- Plastic Surgery
- Surgical Oncology
- Surgical Research
- Vascular Surgery & Endovascular Therapy

180 full-time faculty members

- 31 Professors
- 24 Associate Professors
- 60 Assistant Professors
- 71 Instructors

86 volunteer and adjunct faculty members

180 full-time employees

Education

105 residents and fellows

2,150 applicants for 8 categorical general surgery residency positions

1,500 applicants for 14 preliminary general surgery residency positions

Residency Programs (program director)

- General Surgery
 - Dr. Bradford G. Scott
- Congenital Cardiac Surgery
 - Dr. Charles D. Fraser Jr.
- Pediatric Surgery
 - Dr. Mark V. Mazziotti
- Plastic Surgery (Integrated Program)
 - Dr. Shayan Izaddoost
- Surgical Critical Care
 - Dr. S. Rob Todd
- Thoracic Surgery (Cardiothoracic)
 - Drs. Joseph S. Coselli, Ross Reul, and Denton A. Cooley
- Vascular Surgery
 - Dr. Joseph L. Mills Sr.

Fellowship Programs (program director)

- Aortic Surgery
 - Dr. Joseph S. Coselli
- Liver/Renal Transplantation
 - Dr. Christine A. O'Mahony
- Pediatric Plastic Surgery
 - Drs. Larry H. Hollier and David Y. Khechoyan
- General Thoracic Surgery
 - Dr. David J. Sugarbaker
- Transplant & Mechanical Circulatory Support
 - Dr. William E. Cohn
- VA Chief Residency in Quality and Patient Safety
 - Dr. Samir S. Awad

Research

Total extramural funding: \$8,608,322
NIH funding: \$3,146,986
Peer-reviewed articles and book chapter: 350

Endowed Chairs

- Brad & Melissa Juneau Endowed Chair†
 - Dr. Jeffrey S. Heinle
- Center for Molecular Surgery Chair
 - Dr. Changyi Johnny Chen
- Cullen Foundation Endowed Chair
 - Dr. Joseph S. Coselli
- DeBakey-Bard Chair in Surgery
 - Dr. Todd K. Rosengart
- Donovan Chair in Congenital Heart Surgery†
 - Dr. Charles D. Fraser Jr.
- George L. Jordan, MD Chair of General Surgery
 - Dr. William E. Fisher
- JLH Foundation Chair in Transplant Surgery†
 - Dr. John A. Goss
- Meyer-DeBakey Chair in Investigative Surgery
 - Dr. George P. Noon
- Olga Keith Weiss Chair of Surgery
 - Dr. Steven A. Curley
 - Dr. David J. Sugarbaker
- Susan V. Clayton Chair in Surgery†
 - Dr. Charles D. Fraser Jr.
- S. Baron Hardy Chair in Plastic Surgery†
 - Dr. Larry H. Hollier
- William J. Pokorny, MD Professorship in Pediatric Surgery
 - Dr. Jed G. Nuchtern
- Stan and Sue Partee Endowed Professorship in Surgery
 - Dr. Prasun K. Jalal
- Jimmy and Roberta Howell Endowed Chair in Surgery
 - Dr. Scott A. LeMaire (partially funded)
- Lester and Sue Smith Endowed Chair in Surgery (unappointed chair)

† Texas Children's Hospital

One of the great legacies in surgery

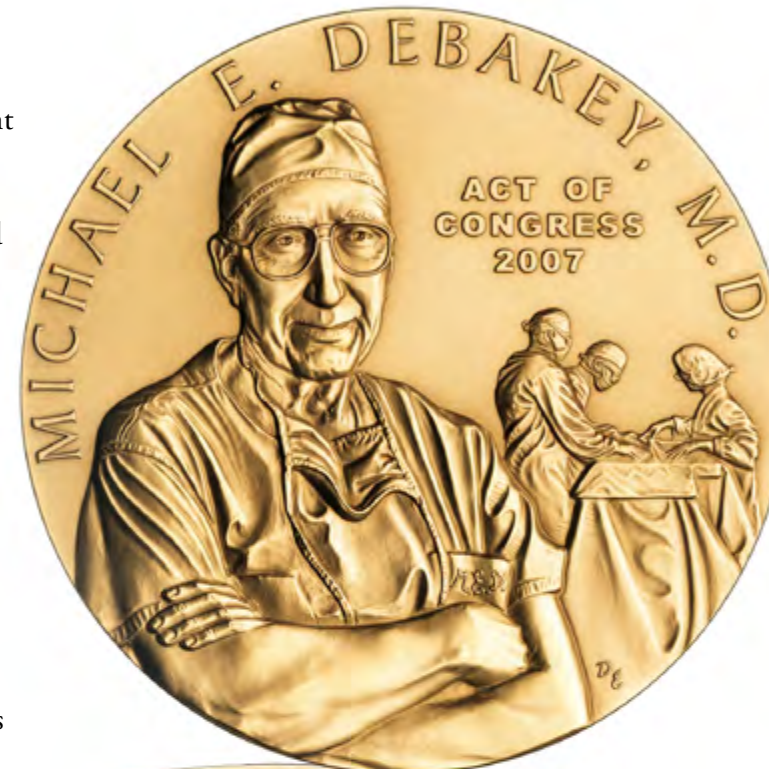
The Michael E. DeBakey Department of Surgery was so named in 1999 to honor the great legacy of its iconic and longest-serving chairman, who led the department from 1948 to 1993. Dr. DeBakey and the surgeons he recruited and trained advanced the science of medicine, created innovative surgical instruments and techniques, and touched the lives of millions of people.

A prolific physician and teacher, Dr. DeBakey performed more than 60,000 cardiovascular procedures and trained more than 1,000 surgeons who now practice throughout the world.

Considered by many to be the father of cardiovascular surgery, Dr. DeBakey contributed trailblazing discoveries in surgical science and developed techniques that still serve as the basis of modern day surgery.

His contributions include, but are not limited to, his role in the performance of the first carotid endarterectomy (1953), excision and homograft replacement of an aneurysm of the abdominal aorta (1954), use of artificial graft material to replace the aorta (1954), aortocoronary artery bypass (1964), and left ventricular assist device implantation (1966).

The Michael E. DeBakey Department of Surgery salutes the ground breaking work of this great pioneer of surgery, biomedical research, and medical education who shaped the future of our department over the past six decades. We are inspired to advance the legacy of one of the great departments of surgery and chronicle our progress towards that goal in this report.



Message from the Chair

We are pleased to report that our department has continued its accelerated growth and development since the time of our last report, another exciting chapter in the annals of our history.



Our research program has expanded rapidly with funding levels that should take us to the top 40 in NIH ranking. Our new Research Core now manages over 30 ongoing clinical trials and more than \$70 million in submitted grant applications. Our education programs have likewise advanced to attract the highest caliber of candidates to our residency programs. Our incoming board scores are in the top 15th percentile, and our new recruits are achieving the highest American Board of Surgery In-Training Examination (ABSITE) scores in recent memory. Our undergraduate education programs, in turn, are inspiring many of our medical students—over 40 this year—to seek careers in surgery or surgical specialties.

No change in our department has, however, been more significant than that rendered by the joint venture completed by Baylor College of Medicine and Catholic Health Initiatives (CHI) in January 2014, which created the Baylor St. Luke's Medical Center (BSLMC) as the academic healthcare center and clinical hub of our program. Our department has taken a prominent lead in guiding the growth and development of the new BSLMC with **Dr. David H. Berger** serving as its chief clinical

officer, and a number of our division chiefs taking on service line leadership roles. New suites of multidisciplinary surgical offices have been created de novo over the past 18 months at the Baylor Clinic – which will eventually move to the new McNair Campus – to address the needs of our new and rapidly growing BSLMC programs.

To meet the opportunities offered by our expanding clinical and academic portfolios, in the time since our last report we have appointed over 30 new faculty members and witnessed the expansion of a great variety of new programs and initiatives. We have launched a new Division of General Thoracic Surgery and partnered in the creation of the Lung Institute at Baylor College of Medicine under the leadership of **Dr. David J. Sugarbaker**. We cheered the attainment of NCI Comprehensive Cancer Center status for Baylor under the leadership of Division of Surgical Oncology chief **Dr. Steven A. Curley**.

Amongst our other new faculty, we are pleased to welcome **Dr. Joseph L. Mills Sr.** as our new chief of the Division of Vascular Surgery & Endovascular Therapy and director of the Vascular Surgery Residency Program. An internationally renowned and accomplished expert in the area of limb salvage, Dr. Mills' vast expertise and experience promises to boost our already highly successful vascular surgery programs and practices and further advance our standing in the field.

We are also very excited to welcome **Dr. S. Rob Todd**, previous associate professor of surgery at New York University School of Medicine, who has joined our department as chief of general surgery and director of the Ginni and Richard Mithoff Trauma Center at Ben Taub Hospital. Dr. Todd has already made great strides at Ben Taub advancing the

internationally acclaimed programs built there by chief-of-staff and trauma surgery pioneer **Dr. Kenneth L. Mattox**. As the new director of our surgical critical care residency program, Dr. Todd has overseen the recruitment of the largest critical care residency candidate pool in recent memory. Our outstanding recruit from Washington University, **Dr. Robert E. Southard**, shares responsibilities with Dr. Todd for developing our critical care programs, and has led our efforts establishing new surgical critical care units at Baylor St. Luke's Medical Center.



Dr. Denton Cooley (center) was welcomed back to the department as distinguished emeritus professor by Dr. Todd Rosengart, chair of surgery and Dr. Paul Klotman, president, Baylor College of Medicine

Of our many new faculty members, none can be considered more welcomed or more honored than **Dr. Denton A. Cooley**, who we were most pleased to greet back to the faculty of the Michael E. DeBakey Department of Surgery as Distinguished Emeritus Professor in a special ceremony marking the occasion held in summer, 2014. The event was attended by Baylor College of Medicine President Dr. Paul Klotman and many of Dr. Cooley's colleagues from the Texas Heart Institute.

Dr. Cooley also joined us this past year for the 20th Congress of the DeBakey International Surgical Society, commemorating the 60th anniversary of our general surgery residency program. The two-day event was keynoted by Vice President Dick Cheney, a recipient of many of the medical advances innovated in the department by Dr. Cooley, Dr. DeBakey, honoree **Dr. O.H. "Bud" Frazier**, and other department faculty and alumni.

We also continue to cheer the great successes of many of our existing faculty members, including **Dr. Joseph S. Coselli**, who this past year assumed the presidency of the American Association for Thoracic Surgery, succeeding Dr. Sugarbaker a year after he too rose to this most prestigious office in the cardiothoracic field.

Among our many other faculty and resident recognitions and accomplishments of the past year, a singular achievement is that of **Dr. Faisal G. Bakaen**, chief of cardiothoracic surgery at the Michael E. DeBakey VA Medical Center (MEDVAMC), who was appointed chair of the Veterans Affairs National Surgical Quality Data Use Group.

We also celebrate with Dr. Kenneth Mattox his appointment as second vice-president of the American College of Surgeons (ACS), and congratulate him in the establishment of an ACS International Lectureship and Scholarship Program in his name. Congratulations also go to **Dr. Scott A. LeMaire**, vice chair for research, upon his appointment as editor of the prestigious *Journal of Surgical Research*.

Since the time of publication of our last department report, we have been pleased to open our new Surgical Simulation Lab, hosted by the department in space adjacent to the **DeBakey Surgical Labs** and directed by **Dr. Avo Artinyan** together with **Deborah J. Taylor**. Finally, this past year saw the launch of our Department of Surgery Incubator (DoSI), an innovation think tank led by **Dr. William E. Cohn**.

In short, we are proud to report that the Michael E. DeBakey Department of Surgery continues to flourish and grow, that our accomplishments and milestones proliferate, and that our ability to execute on our aim inspired by Dr. DeBakey – to achieve excellence – has never been greater.

A handwritten signature in black ink that reads "Todd K. Rosengart".

Todd K. Rosengart, MD
Professor and DeBakey-Bard Chair
Michael E. DeBakey Department of Surgery

Department Leadership*



Todd K. Rosengart, MD
Chair, Department of Surgery



Bradford G. Scott, MD
Vice-Chair for Education



Scott A. LeMaire, MD
Vice-Chair for Research



Samir S. Awad, MD, MPH
Vice-Chair for Surgical Quality
and Safety



John A. Goss, MD
Chief, Division of Abdominal
Transplantation



Joseph S. Coselli, MD
Chief, Division of
Cardiothoracic Surgery



Charles D. Fraser Jr., MD
Chief, Division of Congenital
Heart Surgery



William E. Fisher, MD
Chief, Division of
General Surgery



David J. Sugarbaker, MD
Chief, Division of General
Thoracic Surgery



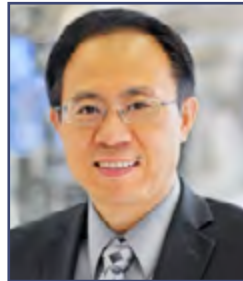
Jed G. Nuchtern, MD
Chief, Division of Pediatric
Surgery



Larry H. Hollier, MD
Chief, Division of
Plastic Surgery



Steven A. Curley, MD
Chief, Division of
Surgical Oncology



Changyi Chen, MD, PhD
Chief, Division of
Surgical Research



Joseph L. Mills Sr., MD
Chief, Division of Vascular
Surgery & Endovascular Therapy



David E. Wesson, MD
Director, Faculty
Education & Development



William E. Cohn, MD
Director, Surgical Innovation



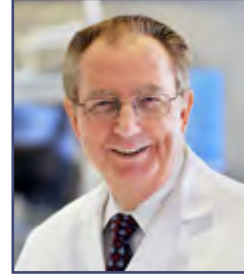
S. Rob Todd, MD
Director, Ginni and Richard
Mithoff Trauma Center



Juliet Holder-Haynes, MD
Director, Surgery Core
Clerkship



Barbara W. Trautner, MD, PhD
Director, Clinical Research



Kenneth L. Mattox, MD
Chief of Staff and Surgeon-in-
Chief, Ben Taub Hospital

*Highest departmental title or rank is indicated



MISSION AREA HEALTHCARE

Our mission is to provide healthcare services that are of the highest quality. We strive to deliver compassionate care for all our patients.

Since its beginning, our department has always been a place of innovation and excellence. In fact, the inscription on Dr. DeBakey's Medal of Honor reads, "My goal in life has been the pursuit of excellence." We are building on that rich heritage as our faculty continues to expand and attract world renowned surgeons with advanced subspecialty training and expertise. We use innovative techniques including advanced minimally invasive and robotic pancreatic, hepatobiliary, gastrointestinal, endocrine, vascular, and thoracic surgery, and offer innovative clinical trials including immunotherapy for cancer. We are serving our local population, including Harris County residents, and our veteran population. Our surgeons, who are leaders in their fields, are attracting patients who are willing to travel great distances to access truly expert care and our proven superior outcomes.

Our surgical team consists of leaders of a tertiary and quaternary referral center in part because of our reputation for being able to handle the most complex surgical problems, from thoracoabdominal aortic aneurysms to cancer with liver metastases or peritoneal disease. But we are doing more than just taking on these tough challenges in surgery and saving the lives of critically ill patients. We are committed to providing a patient-centered experience that is second to none.

An important part of our strategy has been the creation of an innovative, integrated program for Acute Care Surgery Services (Trauma [Ben Taub Hospital only], Surgical Critical Care, and Emergency Surgery) spanning all of our hospitals. This program allows us to immediately respond to surgical emergencies while avoiding interruptions in the care of our patients in clinic, the hospital, or the operating room. We have recruited some of the most talented and experienced surgeons in the country to staff this program. As a team, they are available at all times to provide a new focus on acute surgical emergencies and surgical critical care. With subspecialty training and American Board of Surgery special certification in Surgical Critical Care, this new surgical group is implementing the most contemporary, evidence-based ICU protocols shown to improve outcomes in critically ill patients.

Conjoined twins undergo successful separation at Texas Children's Hospital

The department proudly joined the celebration for the successful separation of Knatalye Hope and Adeline Faith Mata, conjoined twin girls born at Texas Children's Pavilion for Women in April 2014. The surgery, which took place on Feb. 17 at Texas Children's Hospital, was an extraordinary team effort of 12 Baylor faculty surgeons, six anesthesiologists, and eight surgical nurses who worked for approximately 23 hours on Knatalye and 26 hours on Adeline; the official separation of the twin girls occurred approximately 18 hours into the surgery.



The team prepared for this surgery for months by working with our radiology experts to build a 3-D model of the twins' organs, conducting simulations of the actual separation surgery, and participating in many multidisciplinary conferences.

Knatalye went home by the end of April and Addy followed in June.

Photo by Allen Kramer, courtesy Texas Children's Hospital

Researchers in our department are exploring:

- Cellular reprogramming for the treatment of heart failure
- Development of a total artificial heart
- Neurologic outcomes in patients undergoing carotid endarterectomy vs carotid artery stenting
- Use of ventricular assist devices in pediatric heart transplant candidates
- New immunotherapy and direct tumor suppression for treating pancreatic cancer
- Novel treatment strategies for malignant mesothelioma
- New molecular strategies for treating neuroblastoma and other pediatric tumors
- Impact of low case volume on outcomes after pediatric liver transplantation
- New techniques to assess outcomes for the surgical treatment of craniosynostosis
- Effectiveness of preoperative decontamination protocols in preventing surgical site infections

MISSION AREA

RESEARCH

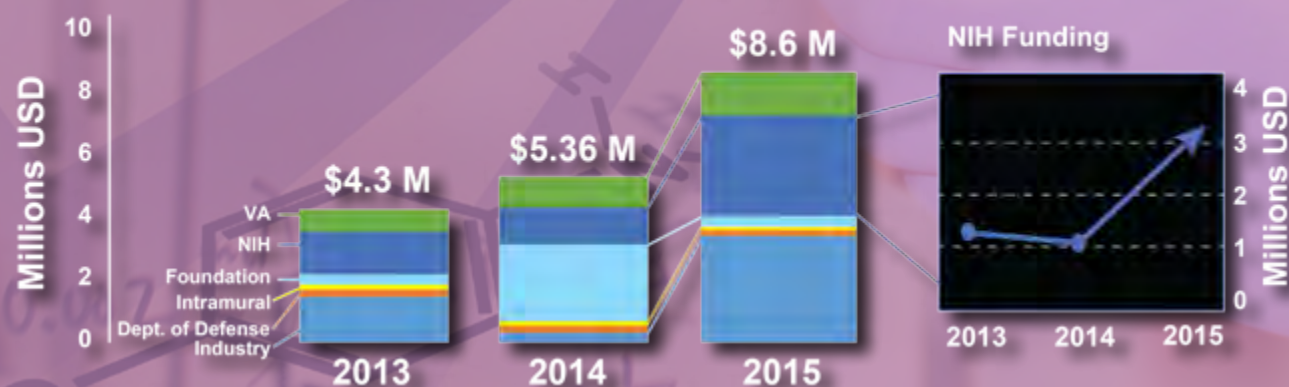
The mission of the department's research program is to conduct important research in surgical disease to improve treatment and quality of life for affected patients, and to train future leaders in academic surgery.

We are dedicated to creating an environment where surgical investigators discover new knowledge, develop innovations, and translate research advances into improvements in patient care. Our efforts to accomplish these goals coalesce into three distinct programs:

- **Division of Surgical Research (DSR)**, led by **Dr. Changyi (Johnny) Chen**, brings together our basic science researchers and PhDs in a unit that encourages collaboration and interaction with clinicians and physician scientists;
- **Surgical Research Core**, led by **Dr. Barbara W. Trautner**, is a team of nearly twenty professionals, including grants managers, clinical research coordinators, database managers, a biostatistician, a medical illustrator, and a medical editor and writer, who provide easily accessible, centralized expertise in clinical research;
- **Resident Research Training sabbaticals**, which offer to four of our eight general surgery residents two-year focused research sabbaticals during their general surgery residency training.

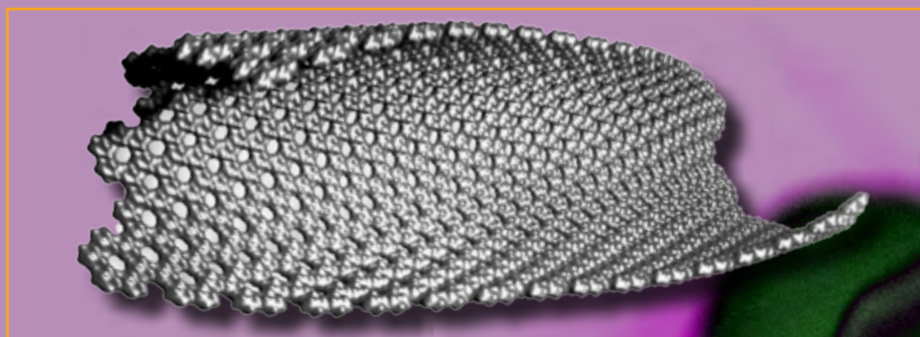
Surrounding these core programs are a matrix of faculty seed grants, DSR-sponsored weekly research symposia and grant review sessions, newly created resident research requirements that are coupled with research training sessions led by vice chair for research **Dr. Scott LeMaire**, and our departmental innovation incubator led by **Dr. William Cohn**, all designed to foster and support the research mission. A growing number of campus-wide databases offers the promise of clinical research evaluating patient care provided "The Baylor Way."

Total Departmental Research Funding



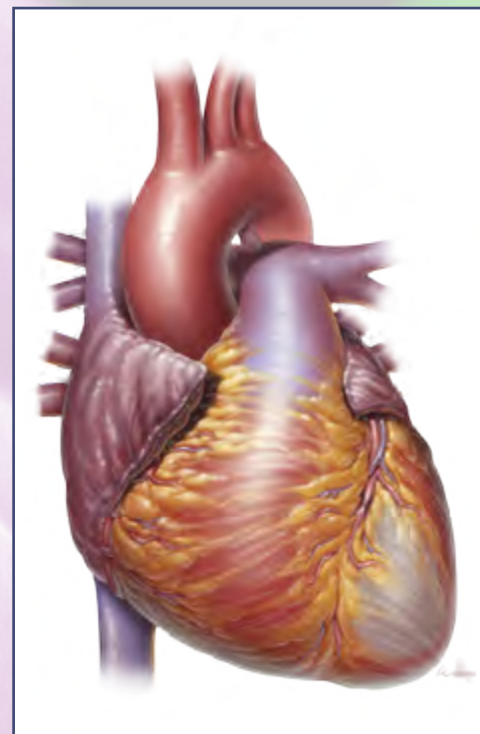
Major Research Grants

RF Treatments for Pancreatic and Liver Cancers



Dr. Steven Curley, professor and chief of the Division of Surgical Oncology, has been awarded a three-year, \$9 million grant from NeoTherma Oncology, Inc. for his study titled, “Basic and preclinical research in support of non-invasive radiofrequency (RF) field therapy leading to human clinical trials in pancreatic and hepatocellular cancer.” Dr. Curley and his team will study the potential use of RF energy to treat malignancies alone or in combination with drugs and treatment-enhancing agents such as nanoparticles.

Dr. Curley has been leading a basic science laboratory for over 20 years. Having developed two FDA-approved devices for invasive RF ablation needles to treat unresectable liver cancers, he is currently focusing his studies on optimizing an RF system to be used clinically either alone or together with metallic or semiconducting nanoparticles that heat under RF field induction to kill cancer cells. His group has also performed complex physiochemical measurements of nanoparticles and conjugated them to antibodies, peptides, and pharmacologic agents to target cancer cells. He hopes to test these novel treatments in human clinical trials at Baylor, pending FDA approval of an Investigational Device Exemption (IDE).



NIH-NHLBI Grant for Cardiac Cellular Reprogramming

Dr. Todd Rosengart, professor and chair of Surgery, was awarded a four-year, \$3 million NIH-National Heart, Lung, and Blood Institute R01 grant for his research proposal titled, “*In situ* cardiac infarct cellular reprogramming.” The goal of this research is to transdifferentiate scar fibroblast cells into new cardiomyocytes *in situ* through injection of reprogramming gene cocktails into areas of myocardial infarction, as an alternative to transplant or assist device implantation for patients with end-stage heart disease.

Dr. Rosengart, one of the pioneers in the field of gene therapy whose work began in the early 90s, now leads a team of scientists engaged in the study of cardiac cellular reprogramming. He holds twelve patents, including those for methods to induce angiogenesis.

NIH Grant for Pancreatic Cancer Research

Dr. Qizhi Cathy Yao, professor of surgery, received a five-year, \$2 million NIH R01 grant for her study entitled, “A novel miR-198 replacement therapy for pancreatic cancer.” Dr. Yao and her team recently discovered a tumorigenic factor interactome connected through the tumor suppressor miR-198 in human pancreatic cancer patient samples and confirmed miR-198 was tumor suppressive. Dr. Yao is investigating the possibility that miR-198 and the interactome could serve as a potential prognostic marker and that miR-198 replacement therapy could be used as a therapeutic agent to treat pancreatic cancer.



Game faces on, residents prepare for the annual Surgical Skills Olympics



MISSION AREA

EDUCATION

We are focused on training and educating the next generation of surgeons and surgeon-scientists.

Our dynamic educational programs are built upon a strong foundation of an outstanding faculty and a highly qualified cadre of fellows and residents who in turn offer their time and attention to our junior trainees and students. Every year, this experience has led to the development of an ever stronger residency program and the recruitment of a growing class of enthusiastic medical students turning towards careers in surgery.

Under the guidance of outstanding faculty leaders in education and our vice-chair for education **Dr. Bradford G. Scott**, together with a consummate staff of educational administrators led by **Holly Church Shilstone**, our educational curriculum is being expanded and refined each year. New additions include mentorship programs for residents and students, more extensive formative and summative reviews, oral board training for residents, and a new oral exam session scored towards an honors grade for our students.

Our **Global Health Experience** for our General Surgery Residency Program, to begin in July 2016, will include exposure to international, rural, and extramural training in non-traditional specialties such as orthopedics, OB GYN, and urology.

Emblematic of our increased focus on research training, this past year, in addition to our ongoing all-department journal clubs, we held clinical case presentations, research training seminars, and annual Resident Research Day Symposium. We also launched a **Resident Scholar Program** that will allow proficient research residents to matriculate directly into research faculty positions in the department.

Resident Research Day Symposium

Each year we celebrate our Resident Research Day Symposium, a half day “time out” from daily clinical activities that highlights the exciting research efforts of our residents, fellows, and students. In 2015, we opened this exciting day with an inspiring keynote address given on gender disparities in surgical research by Dr. Melina R. Kibbe, department of surgery professor and vice chair of research at Northwestern University. The submitted abstracts, representing nearly 100% resident participation, were delivered as podium and poster presentations before an audience of over 200.



The submissions by trainees and students interested in surgery were judged by a panel of guest physician-scientists. Presentation winners received a certificate of recognition and funding to attend a scientific conference of their choice.

Dr. Mattox Honored as Second Vice-President of the ACS



Kenneth L. Mattox, MD was this past year elected second vice-president of the American College of Surgeons (ACS), the world's largest surgical professional society. Coincident with this honor, the ACS also announced plans to create the Kenneth L. Mattox International Lectureship and Scholarship Program under the direction of the ACS Committee on Trauma—singular honor afforded only the most esteemed members of our professional community.

Dr. Mattox has been a long-serving member of the ACS since becoming a fellow in 1975. He was on the Board of Governors from 1985 to 1991, and again from 1997 to 2004. He also participated on many of its committees and leadership councils; he was chairman of the Medical Device Committee (1983-1985) and senior member of the Committee on Trauma (1989-1995), among others.

VISION LEADERSHIP

The true strength of our department is a gifted faculty led by a cadre of luminaries each of whom is world-class in their own right.

“A leader should have a powerful vision shared by others, and should have the ability to influence people to achieve their goals.” - **Dr. Changyi Johnny Chen**

“A leader takes his people, both those who are comfortable with the status quo and those who are resistant to change, through the entire process of growth and innovation.” - **Dr. Joseph S. Coselli**

“Leadership means being a positive example to the people who work with me and around me. It means being a mentor and serving the people that I work with.” - **Dr. Steven A. Curley**

“Being a leader means to serve. It's about how can I help everybody in my division grow their practice and their program and achieve their goals and the goals of the division.” - **Dr. William E. Fisher**

“A leader has the ability to help others move ahead in their careers, supporting both established and developing faculty members. A leader leads by example and is patient because his job is never finished.” - **Dr. John A. Goss**

“I think that it is very important that a leader articulates a vision that everyone can sign on to and all row in the same direction.” - **Dr. Larry H. Hollier**

“A leader can be like a shepherd: he guides the flock to a destination he has clearly in his mind but can be flexible about how to get there. I follow the shepherd model.” - **Dr. Joseph L. Mills, Sr.**

“A leader must have a clear sense of what he wants to achieve. He must develop or assemble a team that is capable of realizing these goals and facilitate their attempts to achieve them.” - **Dr. Jed G. Nuchtern**

“A leader constantly clarifies the team's purpose and keeps the team's focus on its step by step attainments. A leader understands that clarity of purpose and focused attention are the essence of excellence.” - **Dr. David J. Sugarbaker**

“Leaders develop an inspired vision of where they want their group to be. When leaders are successful they can guide both colleagues who may be and those who may not be on their side to attain that goal.” - **Dr. S. Rob Todd**

“Do your work, ‘before’ you go to work.”
- **Dr. Michael E. DeBaakey**



VISION INNOVATION

We seek to improve health, education, and research by supporting our faculty members and staff to discover and achieve top results, and establish professional collaborations essential for scientific and surgical progress.

Innovation Incubator

The Department of Surgery Incubator (DoSI) represents a new addition to our translational research efforts. Led by **Dr. William E. Cohn**, the DoSI brings together faculty, scientists, residents and students who meet monthly to exchange ideas and develop translational innovations that may have commercial potential. To date, the DoSI has produced half a dozen new patent applications, several of which we expect to go on to issuance as potential commercial licensing opportunities.

Projects currently underway include development of a new means of deploying fenestrated aortic grafts, an online patient compliance tool, a wireless lower extremity compression device, a TAVR and stent device, a self-cleaning videoscope, and even a new form of surgical glove application.

The exchange of ideas engendered by the DoSI represents academic medicine functioning at its highest level. We are pleased to sponsor and support this creative enterprise for the advancement of surgical science and the good of our patients.

Cardiac surgeon Dr. William Cohn works with the newly formed TMC Biodesign program, a one-year innovation fellowship.

Photo courtesy TMC News



VISION COMMUNITY

It is our vision to promote healthy communities by working with local, regional, and global partners to develop public service initiatives that fulfill unmet needs associated with access to healthcare.

Our department faculty is widely engaged in community outreach regionally and worldwide to help disseminate safe and high quality health care to those in need. A few examples of these initiatives are:

- **PurpleStride Houston**, back this year, will include the Elkins Pancreas Center team participating in the 5K run and family-friendly walk which raises awareness and support for pancreatic cancer. **Dr. George Van Buren II** is honorary chairman of the event this year, a role held previously by **Dr. William E. Fisher** in 2012. The event is organized by the Pancreatic Cancer Action Network which has funded researchers in our group in the past.
- **Smile Train**, the largest organization in the world providing care for children with cleft lip and cleft palate problems, recently appointed **Dr. Larry H. Hollier** as chair of its Medical Advisory Board. Dr. Hollier and his colleagues have been on numerous trips to Haiti sponsored by Smile Train, and have travelled with other organizations to Southeast Asia, Central America and Africa to care for children with cleft deformities and serious burn injuries. Additionally, **Dr. Laura A. Monson** traveled to Egypt and **Dr. Edward Buchanan** traveled to Tanzania to treat these children as well.
- **Faith In Practice**, a non-profit, ecumenical Christian organization that seeks to improve the physical, spiritual, and economic conditions of the poor, recently welcomed **Dr. Oluyinka O. Olutoye** and **Dr. Irving J. Zamora** on their medical mission trip to Antigua, Guatemala. Dr. Olutoye is an active medical missionary who has participated in 20 trips to seven countries throughout Asia, Africa and Latin America in the past seven years.

Project ECHO: TeleConferencing Texas and Beyond

Baylor St. Luke's Medical Center launched an exciting telehealth program, Project ECHO (Extension for Community Healthcare Outcomes), led by Dr. Norman Sussman professor of surgery, Project ECHO medical director and hepatologist, and project coordinator, Lizette Escamilla. Project ECHO enables specialists like Dr. Sussman to coach primary care providers throughout the State of Texas in treating patients who have been diagnosed with chronic disease, using telecommunication. After remote primary care providers and specialists make their case presentations, the Project ECHO BSLMC team is able to recommend the appropriate course of action for treatment.

Project ECHO provides a great alternative healthcare option to Texas cities and rural communities that may otherwise lack access to specialized care that can be provided by our department faculty.



Division of Abdominal Transplantation

Celebrating our 500th Liver Transplant at Baylor St. Luke's Medical Center

Under the direction of **Dr. John A. Goss**, the 22 faculty members and the staff of the Liver, Kidney, and Pancreas Center support adult and pediatric transplant programs across the Texas Medical Center. Our surgeons and staff provide transplantation services at Baylor St. Luke's Abdominal Transplant & Liver Disease Clinic, Texas Children's Hospital, and the Michael E. DeBakey VA Medical Center (MEDVAMC), which in the past year added kidney transplant to its existing liver transplant program and became one of only five VA centers to perform kidney transplantations for veterans.

Our liver transplant program is one of the busiest in the nation. **Since 1998, our surgeons have performed over 1,500 liver transplants**, with outstanding results. In 2014, we celebrated the 500th liver transplant performed at Baylor St. Luke's Medical Center. In the past year, over 100 liver transplants were performed by division surgeons, achieving one of the highest survival rates in the country. Pediatric cases counted for almost one-third of these transplants, making this program at Texas Children's Hospital one of the largest in the United States.

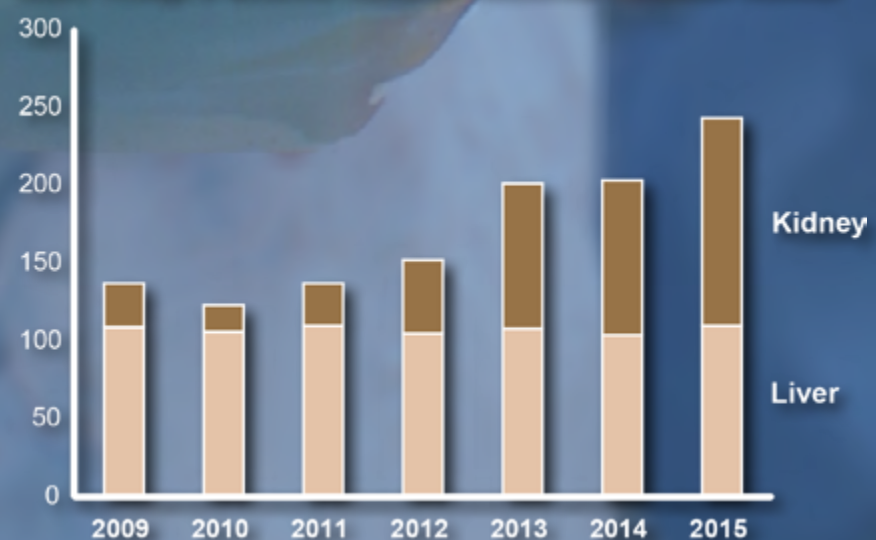
Reflective of this astounding track record, this past year Dr. Goss was awarded the Baylor College of Medicine Master Clinician Lifetime Award in recognition of his 17 years of exemplary and consistent clinical service, commendable leadership skills, and continuous service to the community. Speaking of this recognition, Dr. Goss commented, "It's a very nice feeling to know that we've led the way within the Texas Medical Center when it comes to liver transplantation, and helped so many patients."

Dr. Christine A. O'Mahony leads the division's kidney transplant program alongside Dr. Goss. Under her leadership over the past two years, the kidney transplant group has made extraordinary advances. The kidney transplant program at the MEDVAMC was started in 2014 and is expanding this year with the initiation of a living donor program. At BSLMC, living donor transplants have increased by over 60%, and length of stay has decreased by over 50%. Kidney transplant patient and graft survival are the highest ever achieved – at or near 100% in both cases, with similar outstanding results at Texas Children's.

In order to meet these growing clinical and academic responsibilities, assistant professors **Dr. Abbas Rana** and **Dr. Saira A. Khaderi** were recently recruited to the division as new faculty. Drs. Rana and Khaderi, together with fellowship graduate and now instructor **Dr. Ronald Cotton**, are actively involved in clinical outcomes and translational research in abdominal transplantation and collaborate with the NIH-funded Advanced Liver Therapies Research Center, which conducts over 40 clinical trials annually under the direction of hepatology chief **Dr. John M. Vierling**.

The **Immune Evaluation Laboratory** managed by the division has experienced a meteoric rise in its activities over the past two years, recently adding lab services for the VA Renal Transplant Program. In order to meet these new clinical demands, lab director **Dr. Ronald H. Kerman** recently welcomed **Dr. Peter Jindra** from UCLA as the new assistant laboratory director. Dr. Jindra's contributions have been critical to the successful growth of the HLA lab, now performing over 22,000 studies annually.

Baylor College of Medicine Combined Abdominal Transplant Volumes



Division of Cardiac Transplantation & Circulatory Support

World Leaders in Heart Transplant and Circulatory Support

The Division of Cardiac Transplantation & Circulatory Support has been a leader in the world of transplant and circulatory support surgery. The first successful cardiac transplantation in the U.S. was performed at Baylor St. Luke's Medical Center (BSLMC) by **Dr. Denton Cooley** in 1968. The cardiac transplant program was renewed at the Texas Heart Institute (THI) at St. Luke's in 1982. Under the leadership of **Dr. O.H. Frazier**, a total of more than **1,300 heart transplants and over 1,200 VAD implants have been performed at THI/BSLMC**, making it one of the world's highest volume programs. Currently, with Stanford-trained assistant professor **Dr. Steve K. Singh** joining the faculty in 2013, the program remains a leader in the field of surgery for the failing heart.

Since the early 1960s when Dr. Michael E. DeBakey obtained the first federal grant to develop an artificial heart, Baylor has remained a world leader in the surgical treatment of heart failure. The expertise of Dr. Frazier, a professor of surgery at Baylor College of Medicine, and of previous division chief **Dr. George P. Noon** and colleagues, led to the development of continuous flow (non-pulsatile) LVADs, the most common in worldwide clinical use today. The pumps developed by Dr. Frazier at THI include the HeartMate, the first implantable LVAD approved by the FDA; the HeartMate II, the first continuous flow pump approved by the FDA; the HeartWare, the first centrifugal force continuous flow pump; and the Jarvik 2000, the first pump to demonstrate the feasibility of blood-washed bearings and the cornerstone of all subsequent continuous flow LVAD development. In addition, the MicroMed DeBakey pump developed by Dr. DeBakey and Dr. Noon was the first continuous flow pump implanted.

HeartMate III assist device, developed in collaboration with division faculty. Reprinted with the permission of Thoratec Corporation



The development of the total artificial heart was initiated by Dr. DeBakey in the Baylor labs in the 1950s. The Syncardia pump, the most widely used total artificial heart replacement in use today, is a direct descendent of this technology. The first non-tethered implantable total artificial heart was the AbioCor, which was developed in the THI labs under Dr. Frazier's direction.

Today, Dr. Frazier and **Dr. William E. Cohn**, professor of surgery at Baylor and director of the Center for Technology Innovations at THI, are working through funding from the NIH and other supporters to develop a total artificial heart that will deliver blood by means of continuous flow rather than pulsation. This device is smaller, more reliable, and importantly, more durable than previous generations of artificial hearts. Continued NIH funding is also directed to the ongoing pulmonary hypertension studies of Dr. Noon and colleagues.

Innovation clearly remains the hallmark of the division and its visionary leaders. Fellowships in Transplant & Mechanical Circulatory Support, as well as in the TMC Biodesign program, represent important opportunities for trainees drawn from around the world to learn from these true giants of their specialty.

Division of Cardiothoracic Surgery

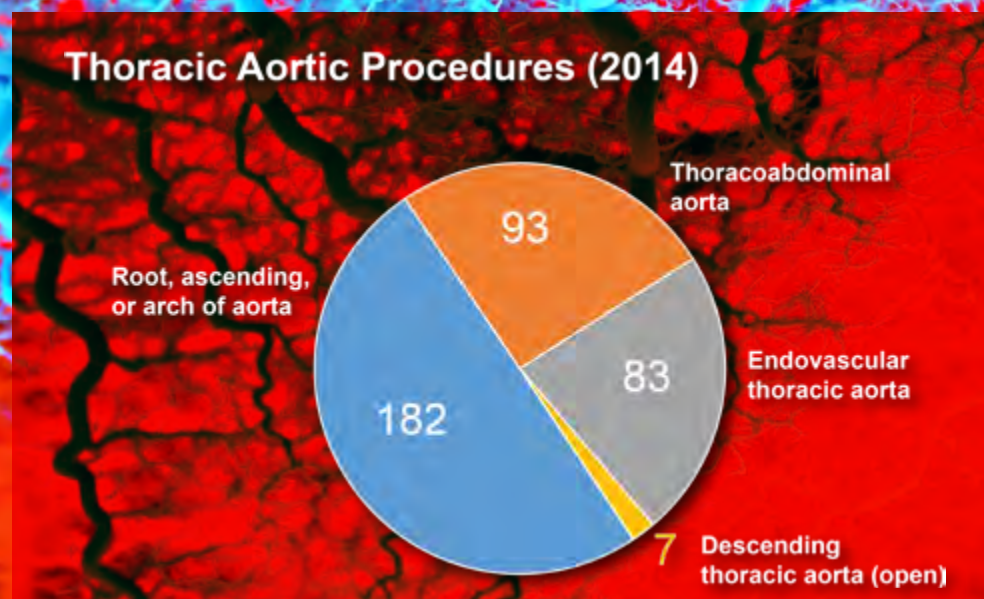
Over 10,000 Aortic Procedures and Counting

The Division of Cardiothoracic Surgery, led by **Dr. Joseph S. Coselli**, builds on the rich legacy of surgical innovators—**Drs. Michael E. DeBakey, Denton A. Cooley, E. Stanley Crawford, and George P. Noon** among others—who originated many of the 20th Century's ground breaking aortic and cardiac surgical procedures. Today, Dr. Coselli, the world's most experienced aortic surgeon with more than 7,500 aortic and over 3,300 thoracoabdominal aneurysm repairs to his credit, leads a world-renowned team of over 15 surgeons and researchers innovating strategies for the evaluation and treatment of diseases of the aorta and cardiovascular system.

The 1500-plus annual cardiac surgery case volume at Baylor St. Luke's Medical Center and our Texas Heart Institute research and education affiliate—founded in 1962 by distinguished emeritus professor **Dr. Denton Cooley**—together with the more than 600 adult cardiac cases performed at our Michael E. DeBakey VA Medical Center (MEDVAMC) and Ben Taub Hospital surgery sites, makes our program one of the largest in the nation. The 350 cases performed at MEDVAMC are the most performed in the VA system, and our site is one of only five VA transcatheter aortic valve replacement programs – and the only one performing trans-apical procedures. Outcomes at the VA, as across the clinical program, are best in class, with morbidity and mortality rates that are amongst the lowest reported results nationally.

A growing portfolio of clinical and translational research efforts in the division, led by our (NIH-funded) vice-chair for research **Dr. Scott A. LeMaire**, includes more than 20 clinical studies in areas ranging from the genetics and molecular biology of aortic disease to applications of new heart valves and aortic grafts. Laboratory studies include the NIH-funded investigations of department chairman **Dr. Todd K. Rosengart**, whose research group is developing a means to use cellular reprogramming to convert cardiac scar tissue into new heart muscle (*see page 13*).

Our three-year cardiothoracic surgery residency program, accepting four residents per year, is the largest in the US. Buoyed by the addition of Division of General Thoracic Surgery chief **Dr. David J. Sugarbaker** and a new general thoracic track program, the application pool for our residency program under the direction of Dr. Coselli and **Dr. Ross M. Reul**, on behalf of Dr. Cooley, has been the strongest in recent memory.



Division of Congenital Heart Surgery




Texas Children's
Hospital

Heart surgeon Dr. E. Dean McKenzie with
division chief and surgeon-in-chief of
Texas Children's Dr. Charles D. Fraser, Jr.

Photo by Allen Kramer, courtesy Texas Children's Hospital

The Largest and Longest Established Program of its Kind

From its inception at Texas Children's Hospital in 1954 as one of the first of its kind, the Division of Congenital Heart Surgery has become a world leader in pediatric congenital heart surgery. Under the direction of **Dr. Charles D. Fraser Jr.**, who is surgeon-in-chief of Texas Children's, the division pursues its mission to provide the very best possible surgical care for children and adults with congenital and acquired cardiovascular disease in an environment that fosters cutting-edge research and educates tomorrow's leaders in children's cardiac surgery.

The six surgeons of the division perform over 900 operations annually, making it one of the largest congenital heart programs in the country. The division is part of Texas Children's Heart Center, which is ranked number two nationally by *U.S. News & World Report*. The surgeons team with dedicated cardiologists, cardiovascular anesthesiologists, critical care doctors, perfusionists, mid-level providers, nurses, and pharmacists who are all trained to work specifically with pediatric heart patients.

In 2014, Texas Children's Hospital celebrated the 30th anniversary of its heart transplant program. Thirty years earlier, Dr. Denton Cooley and Dr. Bud Frazier successfully completed the first heart transplant on an infant in the United States. This past year, the program also achieved **a national record for the most transplantations in a single year: 32 heart and 16 lung transplant procedures.**

The division's **Pediatric Cardiac Bioengineering Laboratory**, a collaboration between Texas Children's, Baylor, and Rice University, is developing innovative translational therapies for pediatric patients with cardiac disease. Research focuses on investigating the influences of biophysical cues and electrical stimulation on the development and maturation of heart cells and tissues. Significant progress is being made in growing heart tissue that can be used to repair congenital heart defects, replacing heart muscle that is absent or damaged.

The division offers one of only 11 national fellowships in congenital cardiac surgery recognized by the Accreditation Council for Graduate Medical Education. Participants in the fellowship program receive intense training in pediatric congenital heart disease, including heart and lung transplantation, in one of the world's largest pediatric heart failure/ventricular assist device (VAD) programs. The programs at Texas Children's, which are among the largest and most successful programs in the nation, also offer training in fetal surgery and adult congenital heart disease. This fellowship program has produced graduates that have taken leadership positions at prestigious institutions all over the world.

For more information on Congenital Heart Surgery education and collaboration opportunities, call 832-826-1929 or email [Lesa Porterfield at Importer@texaschildrens.org](mailto:Lesa.Porterfield@texaschildrens.org).

Division of General Surgery

Bringing Acute Care Surgery and Closed-Unit Critical Care to Our Campus

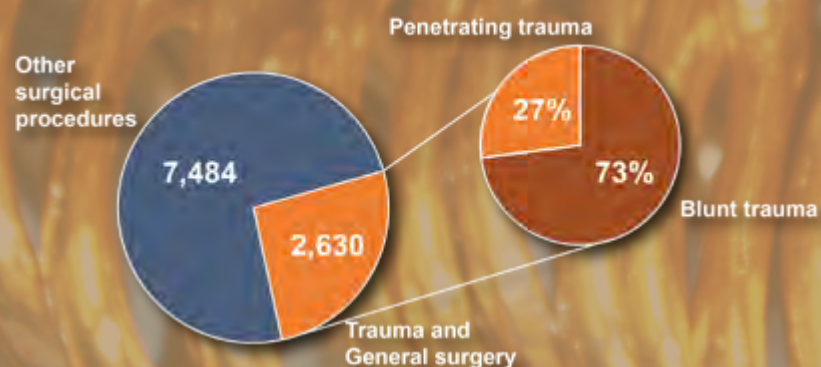
The Division of General Surgery, under the leadership of **Dr. William E. Fisher**, is bringing a new array of specialty care to Baylor St. Luke's Medical Center (BSLMC) at the same time it is introducing closed-unit critical care and acute care surgery services campus-wide. Equally important are the tremendous strides the division has made in the past 18 months integrating its clinical services and research programs across our campus, with cross-institutional faculty appointments, universal clinical care protocols, and campus-wide research databases. These unprecedented efforts set the stage for optimized patient care and a research powerhouse representing Baylor surgical care.

Specialty services brought to BSLMC by Baylor surgeons include a new endocrine surgery section led by **Dr. James W. Suliburk**, and new colorectal and bariatric surgery programs led by **Dr. Avo Artinyan**, and **Dr. Juliet Holder-Haynes**, respectively. The latter are deploying advanced upper and lower abdominal robotic procedures, all newly offered at BSLMC. Closed-unit critical care, introduced to BSLMC by **Dr. Robert E. Southard**, represents another major advancement of the BSLMC surgical program spearheaded by the division.

Major reorganization of our surgical programs is also underway at Ben Taub Hospital, the cornerstone of our training program and outreach to our community. Led by **Dr. Kenneth L. Mattox**, chief-of-staff, and **Dr. S. Rob Todd**, chief of general surgery and director of the Ginni and Richard Mithoff Trauma Center, Ben Taub continues to extend its decades-long status as one of the busiest level I trauma centers in the US—over 13,000 trauma patients and 3,000 acute care admissions annually. This iconic center, which serves approximately one million of the underserved in Houston, nearly a quarter of the entire population of Harris County, is undergoing a unprecedented expansion of its faculty and acute care surgery programs, and is leading efforts for coordinated trauma services across the CHI Houston Network.

Surgery services at the Michael E. DeBakey VA Medical Center (MEDVAMC), the primary healthcare provider for almost 130,000 veterans in Southeast Texas, continue to denote leadership across the VA system – both in volume and quality. Under the supervision of **Dr. Samir S. Awad**, operative care line executive and chief of surgery, the division's seven surgeons have led the MEDVAMC to its ranking as the most advanced of the VA's 141 medical centers. Emblematic of these efforts, the program recently received a national Chief Resident in Quality and Patient Safety Initiative Grant, funding fellowship training in Lean Management.

Trauma and Surgery Cases at Ben Taub Hospital



Division of General Thoracic Surgery

Lung Institute and Mesothelioma Treatment Center Founded

World-renowned surgeon **Dr. David J. Sugarbaker** arrived at the Texas Medical Center (TMC) last summer and promptly founded our new Division of General Thoracic Surgery, the Lung Institute, which integrates medical and surgical treatments for benign and malignant non-cardiac thoracic diseases, and the Mesothelioma Treatment Center (MTC), focused on the evaluation and treatment of patients with mesothelioma. Astoundingly, within its first year of operation, the division recorded over 1,100 clinic visits and 400 surgical cases cared for by a multidisciplinary team of experts ranging from surgeons to medical oncologists, radiologist, and social workers.

Associate division chief **Dr. Bryan M. Burt** and **Dr. Shawn S. Groth**, director of Esophageal Surgical Services—former trainees of Dr. Sugarbaker—recruited from Stanford University and UPMC, respectively, help lead a team that is quickly making its mark in the TMC.

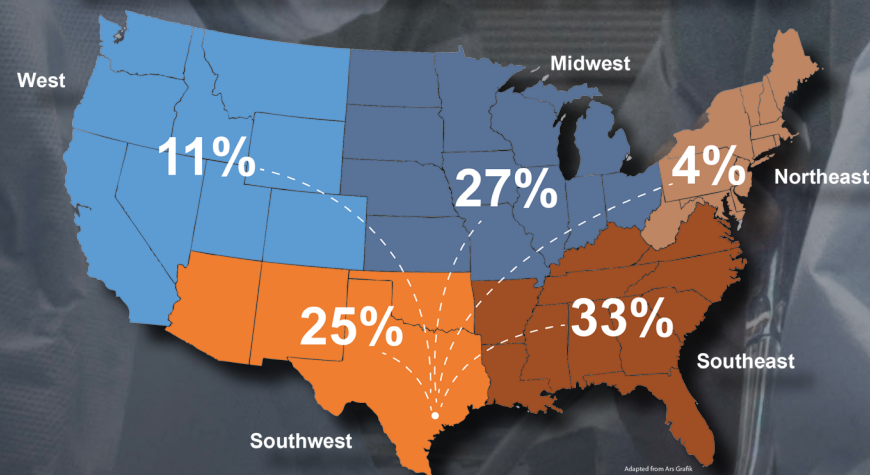
Advanced techniques pioneered by Dr. Sugarbaker and colleagues that are now offered at BSLMC include extrapleural pneumonectomy and inter-operative heated chemotherapy for the treatment of mesothelioma. The Center for Dysphagia and Swallowing Disorders, co-founded and co-directed by Dr. Groth, likewise provides a comprehensive, multidisciplinary approach to benign esophageal disease, supported by a team of otolaryngologists, gastroenterologists, radiologists, speech therapists, and nutritionists to evaluate and treat swallowing difficulties.

Research within the division is also up and running. The General Thoracic Surgery Laboratory established by Dr. Burt, a recent recipient of the Franklin H. Martin MD, FACS Faculty Research Fellowship from the American College of Surgeons, is engaged in the study of the biology of mesothelioma. A number of clinical trials are already underway, and a thoracic tissue bank has already been established in partnership with faculty in the Division of General Surgery and other departmental research leaders.

Under the leadership of Dr. Sugarbaker, a new general thoracic track residency and a fellowship program are being added to our portfolio of post graduate training programs, and our cardiothoracic program this past year enjoyed its largest and strongest recruitment class in recent years.

Division Chief Dr. David Sugarbaker and Dr. Bryan Burt in the OR.

Mesothelioma Treatment Center US Patient Origin



Division of Pediatric Surgery




Texas Children's
Hospital

Photo by Allen Kramer,
courtesy Texas Children's Hospital

A Key Contributor to a National Top Four Hospital

The Division of Pediatric Surgery, headed by **Dr. Jed G. Nuchtern**, includes 16 full-time faculty members and staff physicians at Texas Children's Hospital who combine dedication to patient care with exceptional education and training, advanced research, and development of a broad range of better treatments and individualized surgical procedures that range from the routine to the highly complex.

U.S. News & World Report in its 2015-2016 edition once again ranked Texas Children's as one of the top four children's hospitals nationally— the only hospital in Texas awarded an honor roll distinction. The pioneering efforts of previous division chief **Dr. David E. Wesson** to deploy the Pediatric National Surgical Quality Improvement Program, the first multispecialty outcomes-based program to measure the quality of children's surgical care, has been a critical tool to Texas Children's achieving exemplary surgical outcomes. **Dr. Allen L. Milewicz's** recent appointment as chief surgical officer of the Texas Children's Hospital West Campus promises to further extend these outstanding clinical outcomes across the greater Houston region.

The many unique programs offered by division faculty include the pediatric bariatric surgery program led by **Dr. Mary L. Brandt** and the fetal surgery service led by **Dr. Darrell L. Cass** and **Dr. Oluyinka O. Olutoye**. The fetal surgery service leads the nation in both performing and developing techniques to diagnose and treat congenital abnormalities including cardiac conditions, twin-twin transfusion syndrome, spina bifida, and congenital diaphragmatic hernia in the unborn child.

Research is a priority in the division and its pediatric oncology studies have contributed to making Texas Children's the *U.S. News and World Report* #1 hospital in Texas for treating pediatric cancer. Texas Children's likewise recently earned top honors from Healthcare Informatics magazine for its program to identify best practices and improve outcomes for children with appendicitis. The recent recruitment of NIH-funded physician-scientist **Dr. Sundeep Keswani**, whose research focuses on wound healing, will add another facet to these innovations born at Texas Children's.

In addition to its traditional residency training programs, the division also offers clinical and research fellowships in clinical surgery, oncologic cell biology, fetal therapy, and wound healing. In short, the Division of Pediatric Surgery exhibits excellence in all dimensions.

A male surgeon with short brown hair and glasses, wearing a white lab coat over a white shirt and a blue and white striped tie, is shown in profile, looking intently at a patient's face. The patient's face is in the foreground, slightly out of focus, showing the nose and cheek. The background is a bright, clinical setting with a window.

Division of **Plastic Surgery**

Photo by Agapito Sanchez.

Top Press Ganey Scores Reflect Remarkable Dedication to Patient Service

Surgeons in the Division of Plastic Surgery combine the science of medicine with the art of plastic surgery at the Center for Aesthetic Surgery, Ben Taub Hospital, Houston Methodist Hospital, M.D. Anderson Cancer Center, the Michael E. DeBakey Veterans Affairs Medical Center, and Texas Children's Hospital. **Dr. Larry H. Hollier** leads a team of 10 surgeons who perform a wide variety of reconstructive and other plastic surgery procedures on patients of all ages.

At Texas Children's, a multidisciplinary team of otolaryngologists, dermatologists, radiologists, neurosurgeons, speech therapists, and genetic counselors provide specialized care in the treatment and surgical correction of craniofacial abnormalities, cleft lip and palate, and other complex and common congenital abnormalities.

At the Center for Aesthetic Surgery, an ultra-modern facility fully equipped to support state-of-the-art surgical techniques and surgical care, faculty surgeons led by **Dr. Shayan Izaddoost** address the cosmetic and reconstructive surgery needs of hundreds of adult patients each year.

The division has repeatedly earned top honors in Press Ganey scoring for patient service, reflective of a true commitment to patient care.

Research in the division focuses on improving the care of patients with tissue injuries and congenital deficiencies, including studies evaluating the biologic response to resorbable plate and screw fixation. The division is currently leading a large-scale study of outcomes in pediatric craniofacial surgery. Another large, multicenter trial led by assistant professor **Dr. Rodger H. Brown** seeks to determine the proper role of peri-operative antibiotics in breast surgery.

The six-year, multi-institutional Plastic Surgery Integrated Residency Program is one of the highest ranked programs in the country, and one of the oldest in the US. An associated Pediatric Plastic Surgery Fellowship Program offers advanced training in craniofacial surgery and other procedures specific to this population.



Division of Surgical Oncology

Surgical oncology chief
Dr. Steven Curley

Photo by Agapito Sanchez

Achieving NCI Designation as a Comprehensive Cancer Center

Comprehensive Cancer Center designation is a rare honor – earned by only 45 centers nationally. The Division of Surgical Oncology under the leadership of **Dr. Steven A. Curley**, in collaboration with partners across Baylor at the Dan L. Duncan Cancer Center, joined these esteemed ranks for the first time in 2015. This designation recognizes, in part, the broad array of expertise in surgical oncology now offered by division faculty, including treatments for soft tissue, gastrointestinal, breast, skin, and endocrine cancers.

In addition to having extremely busy, highly specialized programs in liver, pancreatic, and colorectal cancer, led respectively by Drs. Steven Curley, **William E. Fisher**, and **Avo Artinyan**, the division this past year saw the launch of new sarcoma and melanoma programs under the supervision of associate professor **Dr. Eugene A. Choi**, a former trainee of Dr. Curley, who was recently recruited from the University of Chicago. Dr. Choi is partnering with UPMC graduate **Dr. George Van Buren II** to expand our Hyperthermic Intraperitoneal Chemoperfusion (HIPEC) program, now being applied also by oncologists in the Division of General Thoracic Surgery. Robotic and transanal endoscopic microsurgery procedures pioneered at Baylor by Drs. Fisher, Artinyan and Van Buren are likewise being advanced in a growing list of advanced oncologic applications.

To meet the needs of a growing program, our surgical oncology team was joined this year by assistant professors **Dr. Hop S. Tran Cao** and **Dr. Cary Hsu**, who add greater depth to very busy oncology teams led by **Dr. Christy Chai** and **Dr. Nader Massarweh** at the MEDVAMC and **Dr. Eric J. Silberfein** at Ben Taub Hospital. Whether new or existing, all faculty members are extensively engaged in clinical research aided by a growing list of cross-campus clinical databases.

Translation research in the division is highlighted by innovations in the Electromagnetic Field & Nanomaterials Research Laboratory of Dr. Steven Curley, which is led by PhDs **Dr. Stuart Corr** and **Dr. Rita Serda**. Supported by a \$9 million grant to Dr. Curley from NeoTherma Oncology, Inc., these investigators are identifying new ways of treating liver and other cancers with novel radiofrequency ablation techniques augmented by nanoparticle delivery strategies—truly the exemplar of cutting edge research (*see page 12*).



Division of
**Surgical
Research**

Over
\$3.1M in NIH
funding

*Leading the Charge to NIH
Top 40 Status*

The Division of Surgical Research (DSR), led by division chief **Dr. Changyi Johnny Chen** and vice-chair for research **Dr. Scott A. LeMaire**, includes 14 primary (PhD) and 14 joint faculty members primarily focused on basic and translational research. The mission of the division is to promote the development and growth of highly successful research programs by providing a supportive environment for investigators. Division PhD scientists work together with surgeons to investigate molecular mechanisms of surgical diseases and to develop new strategies for the diagnosis and treatment of these diseases, such as pancreatic cancer, breast cancer, aortic aneurysms and dissection, heart failure, mesothelioma, and neuroblastoma.

The division benefits from resources that include well-established human tissue banks, a wide variety of clinically relevant animal models, molecular biology and nanotechnology expertise, and integrative imaging. The DSR promotes scientific discussions and extensive collaborations through regular seminar series and grant review sessions, provides advice and technical assistance in conducting experimental studies, supports core utilization of equipment and resources, and sponsors the development of joint research projects, grants, and publications.

Joining its many other highly productive researchers, the division recently welcomed associate professor **Dr. Rita Serda**, assistant professor **Dr. Stuart Corr**, and assistant professor **Dr. Jian-Ming Lu**. Dr. Serda and Dr. Corr work together in using nanotechnology and radio waves to drive the accumulation of therapeutics at sites of pathology with the major goal of stimulating anticancer immune responses. Dr. Lu's research focuses on the delivery of nanoparticle-gene/drug complexes targeted to cancer and vascular cells with antibodies or other specific proteins conjugated to PLGA-based nanoparticles.

Exemplifying the success of DSR scientists, special kudos go to longstanding DSR member **Dr. Qizhi Cathy Yao**, who received a 5-year NIH R01 grant award for her studies of pancreatic cancer (*see page 13*), and who also received the Barry Stephen Smith Memorial Pancreatic Cancer Award from the Dan L. Duncan Cancer Center for her pre-clinical study of pancreatic cancer immunotherapy.

Division of

Vascular Surgery & Endovascular Therapy

Vascular surgery chief Dr. Joseph L. Mills Sr.

Building a Limb Salvage Program for Texas and Beyond

The Division of Vascular Surgery & Endovascular Therapy this past year welcomed world-renowned vascular surgeon **Dr. Joseph L. Mills Sr.** as its new chief. Among his many achievements, Dr. Mills has served as president of the Association of Program Directors in Vascular Surgery, director and immediate past chair of the Vascular Surgery Board of the American Board of Surgery, and is currently a member of the Residency Review Committee (RRC) for Surgery. He is co-editor of the prestigious “Rutherford’s Vascular Surgery” (7th and 8th editions), the “go-to” textbook for vascular surgery.

Before coming to Baylor, Dr. Mills served as chief of the vascular surgery program at the University of Arizona (1994-2015), where he founded and co-directed the widely acclaimed Southern Arizona Limb Salvage Alliance (SALSA). Based upon this experience, Dr. Mills is building at Baylor a state-of-the-art **Limb Salvage Service** that will seamlessly integrate vascular surgery and podiatry in both outpatient and inpatient settings, with the goal of reducing amputations in patients with peripheral artery disease and diabetes.

With eight full-time faculty surgeons working across the Texas Medical Center, the division offers a full array of minimally invasive endovascular interventions as well as traditional open surgical procedures ranging from a new fenestrated aortic graft program to treatment for complex vascular trauma. As a foundation for its new programs, the division’s peripheral vascular lab was recently accredited by the Intersocietal Accreditation Commission (IAC). IAC accreditation is a “seal of approval” that patients can rely on as an indication that the facility has been carefully critiqued on all aspects of its operations considered relevant by medical experts in the field.

To support its robust existing clinical and research programs, the division looks forward to welcoming **Dr. Bijan Najafi** to its research team. With multiple NIH and SBIR research grants, Dr. Nijafi will bring new expertise in diagnosing and treating gait and motor dysfunction, delivered to patients through highly innovative and entrepreneurial development efforts.

The two-year, ACGME-accredited Vascular Surgery Residency Program at Baylor has remained one of the premier vascular surgery training programs in the country since its establishment by Dr. Michael E. DeBakey and Dr. E. Stanley Crawford in 1970. To better meet the training needs of modern-day vascular surgery, a new “0-5” track has been submitted for approval to RRC with an anticipated start date of July 2016.

Programs in

Undergraduate Education



Michael E. DeBakey Summer Surgery students class of 2015

Undergraduate Medical Education Programs

A core mission of the department is to inspire and train the next generation of surgeons by providing medical students with broad exposure and experience that meets core surgical competencies in both surgical knowledge and skills. Under the direction of clerkship director **Dr. Juliet Holder-Haynes**, associate program director **Dr. Bindi Naik-Mathuria**, assistant program director **Dr. Stephanie Gordy** and academic coordinator **Ashley Crummedyo**, our faculty are actively involved in all educational aspects of our medical student programs, including an eight-week core surgery clerkship rotation for third-year medical students and surgery electives for fourth-year medical students from Baylor and other schools. New additions to our curriculum include small group didactic sessions, sim lab training sessions, end-of-rotation oral exams to enhance eligibility for honors grades, weekly bedside Chairman's Rounds, and an informal monthly "coffee club" meeting with the chairman.

In addition, we have recently expanded our medical student surgical electives to include cardiovascular surgery, vascular surgery, adult cardiac surgery, general thoracic surgery, and surgical oncology at Baylor St. Luke's Medical Center; congenital cardiac surgery at Texas Children's Hospital; adult cardiac surgery at Ben Taub Hospital; and Surgical Intensive Care Unit at the Michael E. DeBakey Veterans Affairs Medical Center (MEDVAMC).

Michael E. DeBakey Summer Surgery Program

The Michael E. DeBakey Summer Surgery Program encourages highly accomplished undergraduate students chosen from a national pool of candidates to pursue a medical career by allowing them to work side by side with medical students, residents, faculty, and healthcare staff in a hospital environment.

Program director **Dr. Shayan Izaddoost** and academic coordinator Ashley Crummedyo have taken this venerated program to even greater heights. This past summer, the program committee selected 15 of 170 applicants from across the nation to participate in an eight-week program of "hands-on" clinical activities, faculty mentorship, and lectures. The program culminated with a memorable "Last Swan Song" event in which students presented their experiences to a departmental audience.

Programs in Postgraduate Education

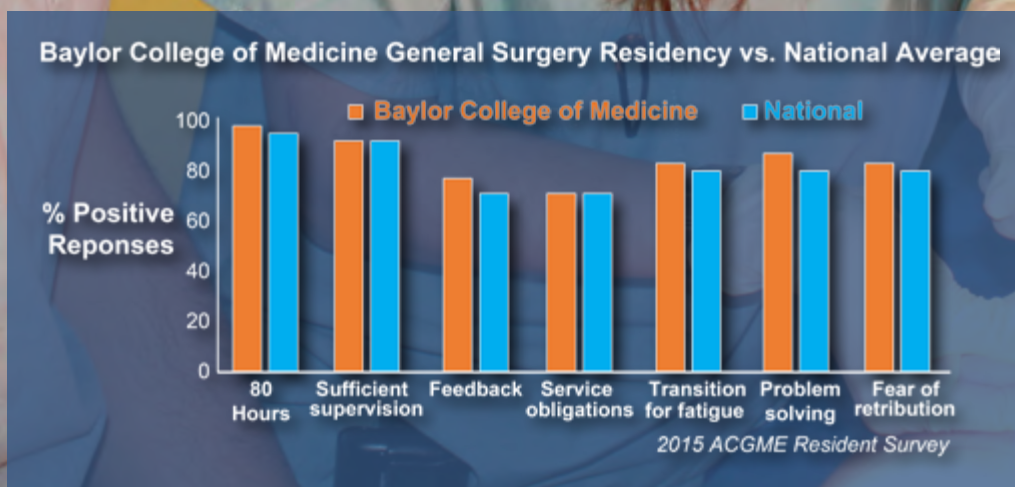
Our department is privileged to train over 100 residents and fellows annually in seven residency programs approved by the Accreditation Council for Graduate Medical Education: general surgery, thoracic surgery, vascular surgery, congenital cardiac surgery, plastic surgery, pediatric surgery, and surgical critical care. Our department also offers nearly half a dozen non-ACGME fellowships approved by the Texas State Board of Medical Examiners and provides additional training in specific areas of surgical interest such as aortic surgery, pediatric plastic surgery, and liver and kidney transplantation.

The number and qualifications of the over 4,000 applicants to our programs increase every year, a positive reflection of the strength of our training. This past year, the board scores of our incoming residents were in the top 15% nationally, and the in-service exam scores of our junior residents were the highest ever recorded for our program.

In addition to the outstanding commitment and qualifications of our trainees, much of the credit for the educational successes goes to our outstanding vice chair for education and general surgery program director **Dr. Bradford G. Scott**, general surgery associate program director **Dr. Eric J. Silberfein**, and lead academic coordinator **Sydney Webster**, who work together with our tremendous faculty, faculty education leadership, and administrative team leader **Holly Church Shilstone**. New programs instituted by this team and other department leaders include a sim lab, research training curriculum, and a global health initiative.

In collaboration with the College, we have also developed an ombudsman program to aid trainee feedback to program leadership. Our new wellness program coordinated by residents and faculty representatives featured our first faculty-resident kickball game, led by **Dr. George Van Buren II** and **Dr. R. Mario Vera**. This past year, we held our Second Annual Surgical Jeopardy competition for faculty and residents, and our Second Annual Sim Lab Skills Olympics.

Our specialty residency training programs are also thriving. This year, the number of applications to the thoracic surgery residency program increased by 75 % and the number of applicants interviewed from top medical schools doubled. Our surgical critical care residency program received twice as many applications and the vascular surgery residency program will be expanded with an integrated (“0-5”) slot in 2016.





Baylor College of Medicine

Simulation Center

A Modern Facility for a State-of-the-Art Program

In 2014, we opened the doors to a beautiful new \$2 million **Baylor College of Medicine Simulation Center**, hosted by the Department of Surgery as a core resource for the entire College. The renovated Sim Center is used by members of a number of Baylor clinical departments, including surgery, medicine, anesthesiology, and orthopedics. Built adjacent to and incorporating the historic “DeBakey Labs” in the main College building, the Sim Center features a wide variety of state-of-the-art computerized surgical simulators, a series of basic skills trainers, three fully-equipped operating rooms, and one imaging room with fluoroscopic imaging capabilities. The center also incorporates a classroom setting with high quality audio visual equipment and two-way conferencing capability for didactic and conference needs.

Sim Center director **Dr. Avo Artinyan** and assistant director **Deborah J. Taylor** lead and oversee this comprehensive resource for surgical education. The Center provides training for residents and fellows in standard and minimally invasive surgical techniques, training for medical students on the basics of knot tying and suturing, continuing medical education (CME) for practicing surgeons, and support to the biomedical industry as a core laboratory.

The Sim Center program carries on the decades-long history of the DeBakey Labs, which through the years have yielded life-saving medical devices, including the artificial heart, ventricular assist devices, and autologous blood salvage.

Accredited by the Association for Assessment and Accreditation of Laboratory Animal Care, the laboratories continue to serve as a site for preclinical studies and post-approval training in new surgical techniques.

Surgical

Research Core



\$8.6M in extramural funding

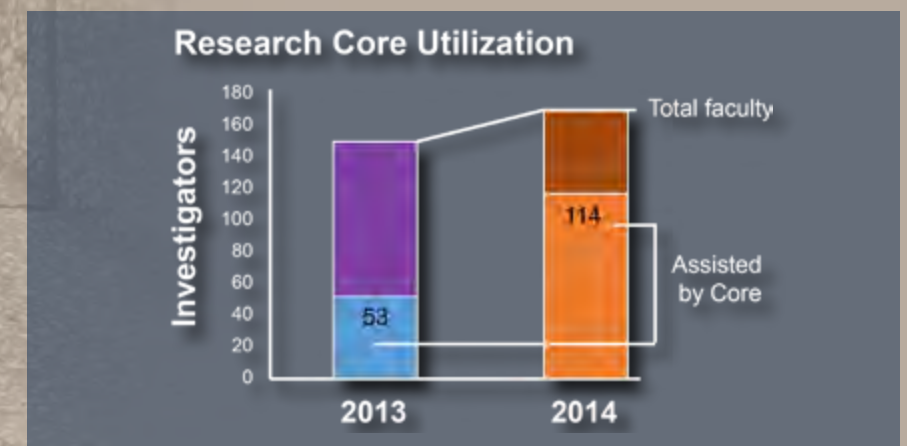
30 clinical trials under management

\$39M in grant submissions

A Multipurpose Support Team Fostering a Growing Clinical Research Portfolio

The **Surgical Research Core**, led by **Dr. Barbara W. Trautner** and vice chair for research **Dr. Scott A. LeMaire**, includes a cadre of nearly 20 team members, including clinical trial coordinators, grant managers, database experts, a biostatistician, a medical writer and editor, and a medical illustrator. The core team serves all faculty members, trainees, and students in the Department of Surgery and their collaborators. This comprehensive clinical trial management service achieves efficiency through direct one-on-one contact with researchers, providing support for grant submission, clinical trial start up and management, and eventually manuscript preparation and submission.

As a result of this collaborative effort, the number of clinical trials under management by the Core has increased from 4 last year to 18 current active clinical studies (and an additional 12 in start-up). Our NIH funding has likewise increased by 250% in the past year (from \$1.2 to \$3.1 million), placing us in a predicted top 40 rank among surgery departments. Our total extramural research funding has increased from \$4 million in 2013 to \$8.6 million in 2015, achieved through a total of \$39 million in grant submissions to the NIH, DoD, AHRQ, CPRIT, and multiple foundations in 2014.



Publications & Honors

In the past year the Michael E. DeBakey Department of Surgery faculty members and trainees published over 350 scientific articles and book chapters. Highlights of these accomplishments are provided below.

Publication Highlights

Single- vs double-lung transplantation in patients with chronic obstructive pulmonary disease and idiopathic pulmonary fibrosis since the implementation of lung allocation based on medical need.

Schaffer JM, Singh SK, Reitz BA, Zamanian RT, Mallidi HR.

JAMA 2015; 313: 936-948.

A comparison of single- vs double-lung transplantation outcomes observed between 2005 and 2012 showed that double-lung transplantation was associated with better graft survival than single-lung transplantation in patients with idiopathic pulmonary fibrosis, and with no survival differences in patients with chronic obstructive pulmonary disease at 5 years.

Transcatheter aortic-valve replacement with a self-expanding prosthesis.

Adams DH, Popma JJ, Reardon MJ, Yakubov SJ, Coselli JS, ; U.S. CoreValve Clinical Investigators et al. *N Engl J Med.* 2014 May (19):1790-8.

This study showed that in patients with severe aortic stenosis who are at increased surgical risk, transcatheter aortic-valve replacement (TAVR) with a self-expanding transcatheter aortic-valve bioprosthesis was associated with a significantly higher rate of survival at 1 year than surgical aortic-valve replacement.

A randomized prospective multicenter trial of pancreaticoduodenectomy with and without routine intraperitoneal drainage.

Van Buren G II, Bloomston M, Hughes SJ, Winter J, Behrman SW, Zyromski NJ, Vollmer C, Velanovich V, Riall T, Muscarella P, Trevino J, Nakeeb A, Schmidt CM, Behrns K, Ellison EC, Barakat O, Perry KA, Drebin J, House M, Abdel-Misih S, Silberfein EJ, Goldin S, Brown K, Mohammed S, Hodges SE, McElhany A, Issazadeh M, Jo E, Mo Q, Fisher WE. *Ann Surg* 2014;259:605-612.

This multicenter clinical trial produced level 1 data showing that the elimination of intraperitoneal drainage in all cases of pancreaticoduodenectomy increases the frequency and severity of complications.

Major Funding

PI: **Dr. Steven A. Curley** “Basic and preclinical studies supporting kanzius radiofrequency (RF) field treatment of malignant solid tumors: basic science and preclinical data to support human clinical trials,” \$3,252,972 (NeoTherma Oncology Inc.)

PI: **Dr. Steven A. Curley** “Targeted nanoparticles and Kanzius RF field treatment of pancreas and liver cancer,” \$1,981,341 (Kanzius Cancer Research Foundation)

PI: **Dr. Scott A. LeMaire** “Targeting the inflammasome to prevent thoracic aortic aneurysms and dissections,” \$396,250 (National Institutes of Health)

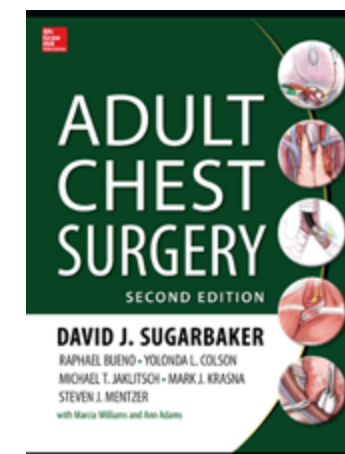
PI: **Dr. William E. Fisher** “Building a Pancreas Surgery Consortium via RCT of Drain Placement,” \$217,938 (National Institutes of Health)

PI: **Dr. Todd K. Rosengart** “*In situ* cardiac infarct cellular reprogramming,” \$681,002 (National Institutes of Health)

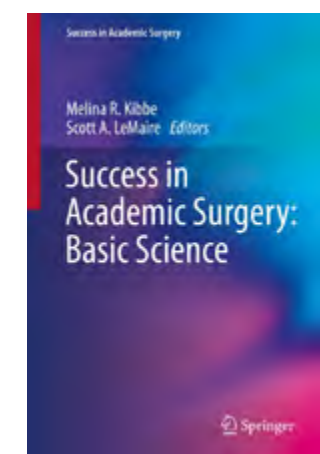
PI: **Dr. Kaiyi Li** “Characterization and targeting BRIT1 deficiency in breast cancer,” \$324,738 (National Institutes of Health)

PI: **Dr. Qizhi Cathy Yao** “A novel miR-198 replacement therapy for pancreatic cancer,” \$393,627 (National Institutes of Health)

Published Textbooks



Sugarbaker D, Bueno R, Colson YL, Jacklitsch M, Krasna M, Mentzer SJ. *Adult Chest Surgery, Second Edition.* Second Ed, McGraw-Hill Education / Medical; 2015 January 12, 2015.



Kibbe MR, **LeMaire SA** (Eds.). *Success in Academic Surgery: Basic Science.* Springer, 2014

Honors & Awards

Faculty

Avo Artinyan, MD, MS: Fellow, American Surgical Association

Neal R. Barshes, MD, MPH: Society for Vascular Surgery EJ Wylie Fellowship (Mentor: J. Mills Sr., MD)

Faisal G. Bakaen, MD: 2014 TSFRE Alley-Sheridan Scholarship
Chair of the Surgical Quality Data Use Group (SQDUG) within the National Surgery Office

David H. Berger, MD, MHCM: Editor-in-Chief, *Perioperative Care & Operating Room Management*

Bryan Burt, MD: American College of Surgeons Franklin Martin Faculty Research Fellowship
Fellow, American Surgical Association

Mary L. Brandt, MD: Distinguished honoree at the Hearts of Gold Gala: Honoring Women in Health & Medical Science
Elected member of the American College of Surgeons Board of Governors Committee on Surgical Volunteerism and Humanitarian Awards

William E. Cohn, MD: Innovations in Cardiovascular Interventions Best Start-Up Award

Joseph S. Coselli, MD: President, American Association for Thoracic Surgery
Inaugural TSRA Travel Fellowship Mentor (A. Jassar, MD)

Steven A. Curley, MD: Chief, Oncology Service Line for CHI St. Luke's Health

John A. Goss, MD: Baylor College of Medicine Master Clinician Award
George P. Noon Faculty Professionalism Award

Shayan Izaddoost, MD, PhD: Fellow, American College of Surgeons

Peter Jindra, PhD: Chair, American Society of Transplantation, Community of Practice Committee

Ronald H. Kerman, PhD: Fellow, American Society of Transplantation

Panagiotis Kougiyas, MD: Baylor College of Medicine Rising Star Clinician Award

Scott A. LeMaire, MD: Editor-in-Chief, *Journal of Surgical Research*
Michael E. DeBakey, MD, Excellence in Research Award

Kenneth L. Mattox, MD: Second Vice-President of the American College of Surgeons
Kenneth L. Mattox International Lectureship and Scholarship

Mónica E. López, MD: Healthcare Informatics Innovator Award

E. Dean McKenzie, MD: Fellow, American College of Surgeons

Allen L. Milewicz, MD: Chief Surgical Officer, Texas Children's Hospital West Campus

Bindi J. Naik-Mathuria, MD: Fellow, American Surgical Association

George P. Noon, MD: Roy M. Huffington Award for Excellence
2014 Ben and Margaret Love Foundation Bobby Alford Award for Academic Clinical Professionalism

Oluyinka O. Olutoye, MD, PhD: Fellow, American Society of Transplantation

Ourania Preventza, MD: 2014 TSFRE Alley-Sheridan Scholarship
Fellow, American College of Surgeons

Todd K. Rosengart, MD: Chairman, Baylor-UT Affiliated Medical Service
Vice-Chair, Baylor Faculty Group Practice Committee

Bradford G. Scott, MD: Clinical Faculty of the Quarter, Baylor College of Medicine
Elected to Baylor's Graduate Medical Education Executive Committee

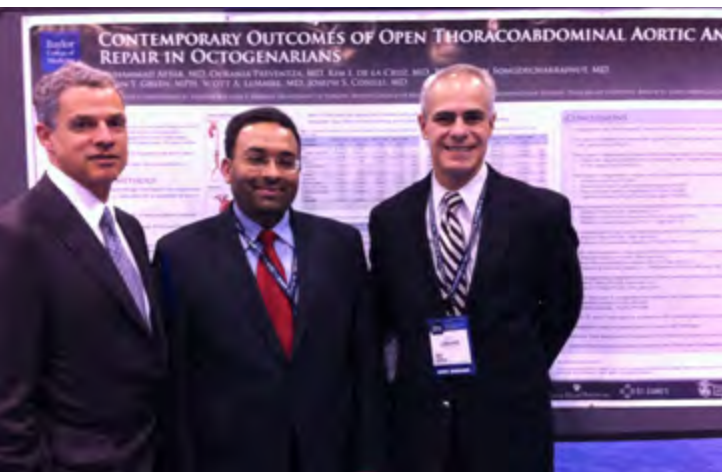
Rita Serda, PhD: Academic Director of the Advanced Technology Core



At the Alumni Symposium & 20th Congress of the Michael E. DeBakey International Surgical Society, former Vice President Dick Cheney is interviewed by Dr. Todd K. Rosengart.
Photo by Margi Levin



Dr. Joseph S. Coselli (left), with Dr. Joseph A. Dearani, chair of Cardiovascular Surgery at Mayo Clinic. Dr. Coselli was the 25th John W. Kirklin Visiting Professor in Cardiac Surgery and Related Problems at Mayo Clinic in Rochester, Minnesota.



Hu Ying Shen, MD, PhD: American Heart Association Summer 2014 Grant-in-Aid

Eric J. Silberfein, MD: Association for Surgical Education Phillip J. Wolfson Award

Vivek P. Singh, PhD: Outstanding New Investigator Award, Council on Basic Cardiovascular Sciences 2014 Scientific Sessions, American Heart Association
American Heart Association's Council on Basic Cardiovascular Sciences BCVS Abstract Travel Grant



James W. Suliburk, MD: Editor, American College of Surgeons Young Fellows Community Moore Foundation Patient and Family Engagement Early Career Investigator Award by the Gordon and Betty Moore Foundation

Norman L. Sussman, MD: Inaugural Fellow, American Association for the Study of Liver Disease

S. Rob Todd, MD: Fellow, American Surgical Association

Peter I. Tsai, MD: American College of Surgeons Scholarships Committee Editorial board, *Journal of Surgical Research*
2014 TSFRE Alley-Sheridan Scholarship
Baylor Rising Star Clinician Award



Sanjeev A. Vasudevan, MD: Editorial board, *Scientific Reports*

Matthew J. Wall Jr., MD: DeBakey Distinguished Service Award
Fulbright & Jaworski L.L.P. Faculty Excellence Award

George Van Buren II, MD: Fellow, American Surgical Association

Honors & Awards

Residents, Fellows, and Students

Paulette Abbas, MD: Best Poster Award, Sixth Annual Texas Children's Surgical Research Day (Mentors: D. Cass, MD; O. Olutoye, MD, PhD; and M. López, MD)

Adesola C. Akinkuotu, MD: Best Oral Presentation, Sixth Annual Texas Children's Surgical Research Day (Mentors: D. Cass, MD; O. Olutoye, MD, PhD; and M. López, MD)

Muhammad Aftab, MD: Resident Research Poster Award, Adult Cardiac Surgery Section, 2014 American Association for Thoracic Surgery (AATS) 94th Annual Meeting

Jennifer Carpenter, MD: Association of Academic Surgeons Travel Award (Mentor: M. Brandt, MD)

Anand V. Ganapathy: Travel Scholarship to attend the 2015 Annual Meeting of the Society for Vascular Surgery. (Mentors: R. Gilani, MD and H. Mallidi, MD)

Ricky Haywood-Watson II, MD, PhD: Society of Thoracic Surgeons Looking to the Future Scholarship (Mentor: D. Sugarbaker, MD)

Jason Ho, MD: T32 fellowship (Mentor: S. Curley, MD)

Michael S. Hughes: Third place, Outstanding Poster Presentation at the 56th Annual National Student Research Forum (Mentors: H. Shen, MD, PhD and S. LeMaire, MD)

Irene T. Ma, MD: Second place, Commission on Cancer National Paper Competition (Mentor: S. Vasudevan, MD)

Meredith C. Mason, MD: Third place, Best Oral Presentation; South Texas ACS Chapter (Mentor: D. Anaya, MD)

Somala Mohammed, MD: American Association for Cancer Research Scholar-In-Training Award (Mentor: D. Anaya, MD)

Sonia T. Orcutt, MD: Raleigh R. Ross Texas Surgical Society Scholarship

Vivekkumar B. Patel, MD: First place Best Oral Presentation; S. Texas ACS Chapter (Mentor: T. Rosengart, MD)
Best Poster, 2015 CVRI Symposium (Mentor: T. Rosengart, MD)

Celia Robinson, MD: Second place, Resident Award Poster Presentation at the 35th Annual Meeting of the Surgical Infection Society (SIS)

Yesenia Rojas, MD: Best of International Society of Pediatric Surgical Oncology (IPSO) session (Mentor: J. Nuchtern, MD)

Brandi B. Scully, MD, MS: Women in Thoracic Surgery Scholarship (Mentor: S. LeMaire, MD)

Fariha Sheikh, MD: Starr Poster Resident Award, Association of Women Surgeons (Mentor: O. Olutoye, MD)

Yan Shi, MD: Best Oral Presentation, IPSO/SIOP Congress (Mentor: S. Vasudevan, MD)
Samuel Stal Research Award for outstanding research by a resident or fellow, Sixth Annual Texas Children's Surgical Research Day (Mentors: J. Nuchtern, MD and S. Vasudevan, MD)

Darrell Wu, MD: Finalist, C. Walton Lillehei Resident Award
2014 American Association for Thoracic Surgery, 94th Annual Meeting

Nader Zamani, MD: Travel Scholarship, Society for Vascular Surgery to attend the 2015 Vascular Annual Meeting

Yanqiu (Yan) Zheng, MD: American Society for Biochemistry and Molecular Biology Outstanding Poster Award at the 56th Annual National Student Research Forum (Mentors: H. Shen, MD, PhD and S. LeMaire, MD)

Peer-Reviewed Publications

Ababneh B, Rejjal L, Pokharel Y, Nambi V, et al. Distribution of calcification in carotid endarterectomy tissues: comparison of micro-computed tomography imaging with histology. *Vasc Med* 2014,19:343-350.

Abbott D, Sohn V, Hanseman D, Curley S. Patient attitudes about the cost of cancer care: expectations and realities in the current health care climate. *Clin Cancer Investig J* 2014,3:225-230.

Abbott DE, Sohn VY, Hanseman D, Curley SA. Cost-effectiveness of simultaneous resection and RFA versus 2-stage hepatectomy for bilobar colorectal liver metastases. *J Surg Oncol* 2014,109:516-520.

Adachi I, Morales DS. Implantation of total artificial heart in congenital heart disease. *J Vis Exp* 2014, 89:e51569.

Adams DH, Popma JJ, Reardon MJ, Yakubov SJ, et al. Transcatheter aortic-valve replacement with a self-expanding prosthesis. *N Engl J Med* 2014,370:1790-1798.

Akdemir KC, Jain AK, Allton K, Aronow B, et al. Genome-wide profiling reveals stimulus-specific functions of p53 during differentiation and DNA damage of human embryonic stem cells. *Nucleic Acids Res* 2014,42:205-223.

Albini P, Barshes NR, Russell L, Wu D, et al. D-dimer levels remain elevated in acute aortic dissection after 24 h. *J Surg Res* 2014,191:58-63.

Albini PT, Segura AM, Liu G, Minard CG, et al. Advanced atherosclerosis is associated with increased medial degeneration in sporadic ascending aortic aneurysms. *Atherosclerosis* 2014,232:361-368.

Anaya DA, Johanning J, Spector SA, Katlic MR, et al. Summary of the panel session at the 38th Annual Surgical Symposium of the Association of VA Surgeons. *JAMA Surg* 2014,149:1191-1197.

Andersson HA, Kim Y-S, O'Neill BE, Shi Z-Z. HSP70 promoter-driven activation of gene expression for immunotherapy using gold nanorods and near infrared light. *Vaccines* 2014,2:216-227.

Andropoulos DB, Ahmad HB, Haq T, Brady K, et al. The association between brain injury, perioperative anesthetic exposure, and 12-month neurodevelopmental outcomes after neonatal cardiac surgery: a retrospective cohort study. *Paediatr Anaesth* 2014,24:266-274.

Anurathapan U, Chan RC, Hindi HF, Mucharla R, et al. Kinetics of tumor destruction by chimeric antigen receptor-modified T cells. *Mol Ther* 2014,22:623-633.

Awad SS, Rodríguez AH, Chuang YC, Marjanek Z, et al. A phase 3 randomized double-blind comparison of cefepime versus ceftriaxone plus linezolid for the treatment of hospital-acquired pneumonia. *Clin Infect Dis* 2014,59:51-61.

Bakaeen FG, Blaustein A, Kibbe MR. Health care at the VA: recommendations for change. *JAMA* 2014,312:481-482.

Bakaeen FG, Blaustein A, Kibbe MR. Physicians assistants in VA medical centers--reply. *JAMA* 2014,312:2289-2290.

Bakaeen FG, Reda DJ, Gelijns AC, Cornwell L, et al. Department of Veterans Affairs Cooperative Studies Program Network of Dedicated Enrollment Sites: implications for surgical trials. *JAMA Surg* March, 2014.

Balentine CJ, Naik AD, Robinson CN, Petersen NJ, et al. Association of high-volume hospitals with greater likelihood of discharge to home following colorectal surgery. *JAMA Surg* 2014,149:244-251.

Bangalore H, Ocampo EC, Rodríguez LM, Minard CG, et al. Serum cortisol and early postoperative outcome after stage-1 palliation for hypoplastic left heart syndrome. *Pediatr Crit Care Med* 2014,15:211-218.

Barshes NR, Gold B, García A, Bechara CF, et al. Minor amputation and palliative wound care as a strategy to avoid major amputation in patients with foot infections and severe peripheral arterial disease. *Int J Low Extrem Wounds* 2014,13:211-219.

Barshes NR, Koungias P, Ozaki CK, Goodney PP, et al. Cost-effectiveness of revascularization for limb preservation in patients with end-stage renal disease. *J Vasc Surg* 2014,60:369-374.e361.

Barshes NR, Koungias P, Ozaki CK, Pisisimis G, et al. Cost-effectiveness of revascularization for limb preservation in patients with marginal functional status. *Ann Vasc Surg* 2014,28:10-17.

Barshes NR, Rodríguez-Barradas MC, Bechara CF, Pisisimis G, et al. Microbial isolates and their antimicrobial susceptibilities in inframalleolar foot infections. *Surg Infect (Larchmt)* 2014,15:585-591.

Baskin KK, Rodríguez MR, Kansara S, Chen W, et al. MAFbx/Atrogin-1 is required for atrophic remodeling of the unloaded heart. *J Mol Cell Cardiol* 2014,72:168-176.

avare AC, Naik SX, Lin PH, Poi MJ, et al. Catheter-directed thrombolysis for severe pulmonary embolism in pediatric patients. *Ann Vasc Surg* 2014,28:1794.e1791-1794.e1797.

Bechara CF. Comparing short and midterm infrainguinal bypass patency rates between two ePTFE prosthetic grafts: spiral laminar flow and propaten. *Vascular Disease Management* 2014,11:E54-E58.

Bechara CF, Barshes NR, Pisisimis G, Bates JT, et al. Short- and mid-term results of iliac artery stenting for flush occlusion with the assistance of an occlusive contralateral iliac artery balloon. *Ann Vasc Surg* 2014,28:59-64.

Bechara CF, Pisisimis G, Barshes NR, Koungias P, et al. Midterm outcomes after prearteriotomy guidewire access (PAGA) with antegrade recanalization in patients with extensive aortoiliac occlusive disease without the use of a re-entry device. *J Vasc Surg* 2014,59:566.

Berger DH. Enhanced intracellular targeting of tumor-specific antigens: you can lead a horse to water, but. *JAMA Surg* 2014,149:457-458.

Berger RL, Li LT, Hicks SC, Liang MK. Suture versus preperitoneal polypropylene mesh for elective umbilical hernia repairs. *J Surg Res* 2014,192:426-431.

Bezerra JA, Spino C, Magee JC, Shneider BL, et al. Use of corticosteroids after hepatoporoenterostomy for bile drainage in infants with biliary atresia: the START randomized clinical trial. *JAMA* 2014,311:1750-1759.

Bhadkankar MA, Wolfswinkel EM, Hatef DA, Albright SB, et al. The ultra-thin, fascia-only anterolateral thigh flap. *J Reconstr Microsurg* 2014,30:599-606.

Borhakur G, Cortes JE, Estey EE, Jabbour E, et al. Gemtuzumab ozogamicin with fludarabine, cytarabine, and granulocyte colony stimulating factor (FLAG-GO) as front-line regimen in patients with core binding factor acute myelogenous leukemia. *Am J Hematol* 2014,89:964-968.

Boyle AJ, Jorde UP, Sun B, Park SJ, et al. Pre-operative risk factors of bleeding and stroke during left ventricular assist device support: an analysis of more than 900 HeartMate II outpatients. *J Am Coll Cardiol* 2014,63:880-888.

Brahmbhatt R, Carter SA, Hicks SC, Berger DH, et al. Identifying risk factors for surgical site complications after laparoscopic ventral hernia repair: evaluation of the Ventral Hernia Working Group grading system. *Surg Infect (Larchmt)* 2014,15:187-193.

Buchanan EP, Xue AS, Hollier LH Jr. Craniofacial syndromes. *Plast Reconstr Surg* 2014,134:128e-153e.

Burt BM, Cameron RB, Mollberg NM, Kosinski AS, et al. Malignant pleural mesothelioma and the Society of Thoracic Surgeons Database: an analysis of surgical morbidity and mortality. *J Thorac Cardiovasc Surg* 2014,148:30-35.

Burt BM, Kosinski AS, Shrager JB, Onaitis MW, et al. Thoracoscopic lobectomy is associated with acceptable morbidity and mortality in patients with predicted postoperative forced expiratory volume in 1 second or diffusing capacity for carbon monoxide less than 40% of normal. *J Thorac Cardiovasc Surg* 2014,148:19-28.

Burt BM, Shrager JB. Prevention and management of postoperative air leaks. *Ann Cardiothorac Surg* 2014,3:216-218.

Candelaria NR, Addanki S, Zheng J, Nguyen-Vu T, et al. Antiproliferative effects and mechanisms of liver X receptor ligands in pancreatic ductal adenocarcinoma cells. *PLoS One* 2014,9:e106289.

Carter SA, Hicks SC, Brahmbhatt R, Liang MK. Recurrence and pseudorecurrence after laparoscopic ventral hernia repair: predictors and patient-focused outcomes. *Am Surg* 2014,80:138-148.

Chakravarti D, Su X, Cho MS, Bui NHB, et al. Induced multipotency in adult keratinocytes through down-regulation of $\Delta Np63$ or DGCR8. *Proc Natl Acad Sci U S A*. 2014,111:E572-E581.

Chen C, Liao D, Wang J, Liang Z, et al. Anti-human protein S antibody induces tissue factor expression through a direct interaction with platelet phosphofruktokinase. *Thromb Res* 2014,133:222-228.

Chen DW, Davis RW, Balentine CJ, Scott AR, et al. Utility of routine postoperative visit after appendectomy and cholecystectomy with evaluation of mobile technology access in an urban safety net population. *J Surg Res* 2014,190:478-483.

Chen J, Xia Y, Lin X, Feng X-H, et al. Smad3 signaling activates bone marrow-derived fibroblasts in renal fibrosis. *Lab Invest* 2014,94:545-556.

Chen RH, Lin YC, Lu LT, Chen HY, et al. SCP phosphatases suppress renal cell carcinoma by stabilizing PML and inhibiting mTOR/HIF signaling. *Cancer Res* 2014.

Cheng J, Fan YH, Xu X, Zhang H, et al. A small-molecule inhibitor of UBE2N induces neuroblastoma cell death via activation of p53 and JNK pathways. *Cell Death Dis* 2014,5:e1079.

Clarke C, Lee EI, Edmonds J Jr. Vascular anomalies and airway concerns. *Semin Plast Surg* 2014,28:104-110.

Cochran A, Kao LS, Gusani NJ, Suliburk JW, et al. Use of Twitter to document the 2013 Academic Surgical Congress. *J Surg Res* 2014,190:36-40.

Cohn WE, Handy KM, Parnis SM, Conger JL, et al. Eight-year experience with a continuous-flow total artificial heart in calves. *ASAIO J* 2014,60:25-30.

Cohn WE, Winkler JA, Parnis S, Costas GG, et al. Ninety-day survival of a calf implanted with a continuous-flow total artificial heart. *ASAIO J* 2014,60:15-18.

Correa JA, Fallon SC, Brandt ML. Ehler-Danlos Syndrome association with multiple small bowel atresias in infancy. *Ann Paediatr Rheum* 2014,3:88-91.

Correa JA, Fallon SC, Cruz AT, Grawe GH, et al. Management of pediatric snake bites: are we doing too much? *J Pediatr Surg* 2014,49:1009-1015.

Correa JA, Fallon SC, Murphy KM, Victorian VA, et al. Resource utilization after gastrostomy tube placement: defining areas of improvement for future quality improvement projects. *J Pediatr Surg* 2014,49:1598-1601.

Coselli JS. Acute ascending aortic dissection: support for limited distal repair. *J Thorac Cardiovasc Surg*. 2014,148:2123-2124.

Coselli JS, Green SY. Innovation and instrumentation: endovascular repair of the aortic arch. *J Thorac Cardiovasc Surg* 2014,148:1717-1718.

Coselli JS, Green SY, Zarda S, Nalty CC, et al. Outcomes of open distal aortic aneurysm repair in patients with chronic DeBakey type I dissection. *J Thorac Cardiovasc Surg* 2014,148:2986-2993.e2981-2982.

Coselli JS, Hughes MS, Green SY, Price MD, et al. Valve-sparing aortic root replacement: early and midterm outcomes in 83 patients. *Ann Thorac Surg* 2014,97:1267-1273.

Coselli JS, Volguina IV, LeMaire SA, Sundt TM, et al. Early and 1-year outcomes of aortic root surgery in patients with Marfan syndrome: a prospective, multicenter, comparative study. *J Thorac Cardiovasc Surg* 2014,147:1758-1766, 1767.e1751-1754.

Cotton RT, Nguyen NT, Guiteau JJ, Goss JA. Current techniques for pediatric liver transplantation. *Curr Opin Organ Transplant* 2014,19:468-473.

Cox JA, Bartlett E, Lee EI. Vascular malformations: a review. *Semin Plast Surg* 2014,28:58-63.

Cui Z, Chow DS, Wu L, Lazar DA, et al. High performance liquid chromatography-tandem mass spectrometric assay of dexmedetomidine in plasma, urine and amniotic fluid samples for pregnant ewe model. *J Chromatogr B Analyt Technol Biomed Life Sci* 2014,961:13-19.

Curley SA, Palalon F, Lu X, Koshkina NV. Noninvasive radiofrequency treatment effect on mitochondria in pancreatic cancer cells. *Cancer* 2014,120:3418-3425.

Curley SA, Palalon F, Sanders KE, Koshkina NV. The effects of non-invasive radiofrequency treatment and hyperthermia on malignant and nonmalignant cells. *Int J Environ Res Public Health* 2014,11:9142-9153.

Dathatri S, Gruberg L, Anand J, Romeiser J, et al. Informed consent for cardiac procedures: deficiencies in patient comprehension with current methods. *Ann Thorac Surg* 2014,97:1505-1511.

De Rienzo A, Yeap BY, Cibas ES, Richards WG, et al. Gene expression ratio test distinguishes normal lung from lung tumors in solid tissue and FNA biopsies. *J Mol Diagn* 2014,16:267-272.

Deb S, Singh SK, Moussa F, Tsubota H, et al. The long-term impact of diabetes on graft patency after coronary artery bypass grafting surgery: A substudy of the multicenter Radial Artery Patency Study. *J Thorac Cardiovasc Surg* 2014,148:1246-1253.

Demirozu ZT, Hernández R, Mallidi HR, Singh SK, et al. HeartMate II left ventricular assist device implantation in patients with advanced hepatic dysfunction. *J Card Surg* 2014,29:419-423.

Dindoost P, Chimeh N, Hollinger BF, Saberfar E, et al. The pigeonhole of occult hepatitis B. *Acta Med Iran* 2014,52:582-590.

Ebrahimi R, Bakaeen FG, Uberoi A, Ardehali A, et al. Effect of clopidogrel use post coronary artery bypass surgery on graft patency. *Ann Thorac Surg* 2014,97:15-21.

El-Sayed Ahmed MM, Aftab M, Al-Najjar RM, de la Cruz KI, et al. Renal cell carcinoma extending into the retrohepatic inferior vena cava. *Tex Heart Inst J* 2014,41:671-672.

El-Sayed Ahmed MM, Aftab M, de la Cruz KI, Delgado III RM, et al. Circular air-filled space in the aortic knob: a rare radiologic finding. *Tex Heart Inst J* 2014,41:560-561.

El-Sayed Ahmed MM, Aftab M, Singh SK, Mallidi HR, et al. Triple bridge to simultaneous heart and kidney transplantation. *Ann Thorac Surg* 2014,98:e45-46.

El-Sayed Ahmed MM, Aftab M, Singh SK, Mallidi HR, et al. Left ventricular assist device outflow graft: alternative sites. *Ann Cardiothorac Surg* 2014,3:541-545.

Escobar MA Jr., Hartin CW Jr., McCullough LB. Should general surgery residents be taught laparoscopic pyloromyotomies? An ethical perspective. *J Surg Educ* 2014,71:102-109.

Ethun CG, Fallon SC, Cassady CI, Mehollin-Ray AR, et al. Fetal MRI improves diagnostic accuracy in patients referred to a fetal center for suspected esophageal atresia. *J Pediatr Surg* 2014,49:712-715.

Ezon DS, Khan MS, Adachi I, Jeewa A, et al. Pediatric ventricular assist device use as a bridge to transplantation does not affect long-term quality of life. *J Thorac Cardiovasc Surg* 2014,147:1334-1343.

Fahrenholtz MM, Liu H, Kearney DL, Wadhwa L, et al. Characterization of dermal fibroblasts as a cell source for pediatric tissue engineered heart valves. *J Cardiovasc Dev Dis*. 2014,1:146-162.





Fallon SC, Delemos D, Christopher D, Frost M, et al. Trauma surgeon becomes consultant: evaluation of a protocol for management of intermediate-level trauma patients. *J Pediatr Surg* 2014;49:178-182.

Fallon SC, Ethun CG, Olutoye OO, Brandt ML, et al. Comparing characteristics and outcomes in infants with prenatal and postnatal diagnosis of esophageal atresia. *J Surg Res* 2014;190:242-245.

Fallon SC, Kim ME, Fernández CJ, Vasudevan SA, et al. Identifying and reducing early complications of surgical central lines in infants and toddlers. *J Surg Res* 2014;190:246-250.

Fan Y, Ge N, Wang X, Sun W, et al. Amplification and over-expression of MAP3K3 gene in human breast cancer promotes formation and survival of breast cancer cells. *J Pathol* 2014;232:75-86.

Feng Y, Wu H, Xu Y, Zhang Z, et al. Zinc finger protein 451 is a novel Smad corepressor in transforming growth factor- signaling. *J Biol Chem* 2014;289:2072-2083.

Ferrati S, McConnell KI, Mack AC, Sirisaengtaksin N, et al. Cellular communication via nanoparticle-transporting biovesicles. *Nanomedicine* 2014;9:581-592.

Fraser CD Jr. The disadvantaged right ventricle in hypoplastic left heart syndrome: Additional insight. *J Thorac Cardiovasc Surg* 2014;148:2419.

Fraser CD Jr. Preserving our international heritage of education in congenital heart surgery. *J Thorac Cardiovasc Surg* 2014;148:377-378.

Fraser CD Jr. To fenestrate or not: The Fontan debate gets more complicated. *J Thorac Cardiovasc Surg* 2014;148:2538-2539.

Frazier OH. Mechanical circulatory assist device development at the Texas Heart Institute: a personal perspective. *Semin Thorac Cardiovasc Surg* 2014;26:4-13.

Frazier OH. Mechanical circulatory assist device development at the Texas Heart Institute: a personal perspective. *J Thorac Cardiovasc Surg* 2014;147:1738-1744.

Frazier OH. Increase in left ventricular assist device thrombosis. *N Engl J Med* 2014;370:1464-1465.

Gao Y, Connell J, Wadhwa L, Ruano R, et al. Amniotic fluid-derived stem cells demonstrated cardiogenic potential in indirect co-culture with human cardiac cells. *Ann Biomed Eng* 2014;42:2490-2500.

Ghodsizad A, Bordel V, Wiedensohler H, Elbanayosy A, et al. Magnetically guided recellularization of decellularized stented porcine pericardium-derived aortic valve for TAVI. *ASAIO J* 2014;60:582-586.

Ghoneim N, Bauchart-Thevret C, Oosterloo B, Stoll B, et al. Delayed initiation but not gradual advancement of enteral formula feeding reduces the incidence of necrotizing enterocolitis (NEC) in preterm pigs. *PLoS One* 2014;9:e106888.

Glass CC, Acton RD, Blair PG, Campbell AR, et al. American College of Surgeons/ Association for Surgical Education medical student simulation-based surgical skills curriculum needs assessment. *Am J Surg* 2014;207:165-169.

Goldberg JF, Jeeva A, Dreyer WJ, Adams GJ, et al. Postoperative complications associated with perioperative sirolimus prior to pediatric cardiac retransplantation. *J Pediatr Pharmacol Ther* 2014;19:30-34.

Goldberg JF, Mery CM, Griffiths PS, Parekh DR, et al. Extracorporeal membrane oxygenation support in severe hypertrophic obstructive cardiomyopathy associated with persistent pulmonary hypertension in an infant of a diabetic mother. *Circulation* 2014;130:1923-1925.

Gregoric ID, Radovancevic R, Patel M, Fenik Y, et al. Use of sealed grafts in the HeartMate II left ventricular assist device inflow and outflow conduits. *ASAIO J* 2014;60:300-303.

Grigoryan L, Abers MS, Kizilbash QF, Petersen NJ, et al. A comparison of the microbiologic profile of indwelling versus external urinary catheters. *Am J Infect Control* 2014;42:682-684.

Grigoryan L, Trautner BW, Gupta K. Diagnosis and management of urinary tract infections in the outpatient setting: a review. *JAMA* 2014;312:1677-1684.

Guzmán-Pruneda FA, Fraser CD Jr. Neuroprotective strategies—what do we really need to know? *Semin Thorac Cardiovasc Surg Pediatr Card Surg Annu* 2014;17:77-80.

Halazun KJ, Patzer RE, Rana AA, Verna EC, et al. Standing the test of time: Outcomes of a decade of prioritizing patients with hepatocellular carcinoma, results of the UNOS natural geographic experiment. *Hepatology* 2014;60:1957-1962.

Hamaji M, Ali SO, Burt BM. A meta-analysis of surgical versus nonsurgical management of recurrent thymoma. *Ann Thorac Surg* 2014;98:748-755.

Hamilton K, Wolfswinkel EM, Weathers WM, Xue AS, et al. The delay phenomenon: a compilation of knowledge across specialties. *Craniofacial Trauma Reconstr* 2014;7:112-118.

Harris DA, Fong AJ, Buchanan EP, Monson L, et al. History of synthetic materials in alloplastic cranioplasty. *Neurosurg Focus* 2014;36:E20.

Heinle JS, Gaynor JW. Historical perspectives of The American Association for Thoracic Surgery: John Anton Waldhausen (1929-2012). *J Thorac Cardiovasc Surg* 2014;148:381-386.

Helmick RA, Knofsky ML, Braxton CC, Subramanian A, et al. Mandated self-reporting of ventilator-associated pneumonia bundle and catheter-related bloodstream infection bundle compliance and infection rates. *JAMA Surg* 2014;149:1003-1007.

Henry MJ, Preventza O, Cooley DA, de la Cruz KI, et al. Left ventricular aneurysm repair with use of a bovine pericardial patch. *Tex Heart Inst J* 2014;41:407-410.

Holcomb JB, Fox EE, Scalea TM, Napolitano LM, et al. Current opinion on catheter-based hemorrhage control in trauma patients. *J Trauma Acute Care Surg* 2014;76:888-893.

Hollier JM, Pimpalwar AP, Fishman DS, Popek EJ, et al. Infantile intussusception. *J Pediatr Gastroenterol Nutr* 2014;58:e36.

Hollier Jr. LH. Raymond J. Harshbarger III, MD, FACS, FAAP. *Semin Plast Surg* 2014;28:159.

Hollier Jr. LH. The future of facial trauma care. *J Craniofac Surg* 2014;25:20.

Hollier Jr. LH. Eric H. Hubli, MD, FACS, FAAP, FICS. *Semin Plast Surg* 2014;28:111-112.

Hollier Jr. LH. Edward I. Lee, MD. *Semin Plast Surg* 2014;28:45-46.

Hollier Jr. LH. Jesse C. Selber, MD, MPH, FACS. *Semin Plast Surg* 2014;28:1-2.

Holt AM, West CA, Davis JA, Gilani R, et al. Common femoral vein reconstruction using internal jugular vein after blast injury. *Ann Vasc Surg* 2014;28:1791.e1795-1797.

Huang X, Hollinger FB. Occult hepatitis B virus infection and hepatocellular carcinoma: a systematic review. *J Viral Hepat* 2014;21:153-162.

Hughes K, Guerrier J, Obirizee A, Ngwang D, et al. Open versus endovascular repair of thoracic aortic aneurysms: a nationwide inpatient sample study. *Vasc Endovascular Surg* 2014;48:383-387.

Hussein Q, Artinyan A. Pushing the limits of local excision for rectal cancer: transanal minimally invasive surgery for an upper rectal/rectosigmoid lesion. *Ann Surg Oncol* 2014;21:1631.

Ilyas JA, Vierling JM. An overview of emerging therapies for the treatment of chronic hepatitis C. *Med Clin North Am* 2014;98:17-38.

Inge TH, Boyce TW, Lee M, Kollar L, et al. Access to care for adolescents seeking weight loss surgery. *Obesity* 2014;22:2593-2597.

Inge TH, Zeller MH, Jenkins TM, Helmrath M, et al. Perioperative outcomes of adolescents undergoing bariatric surgery: the Teen-Longitudinal Assessment of Bariatric Surgery (Teen-LABS) study. *JAMA Pediatr* 2014;168:47-53.

Jahanyar J, Koerner MM, Ghodsizad A, Loebe M, et al. Heterotopic heart transplantation: the United States experience. *Heart Surg Forum* 2014;17:E132-140.

Jamaluddin MS, Liang Z, Lu JM, Yao Q, et al. Roles of cardiovascular risk factors in endothelial nitric oxide synthase regulation: an update. *Curr Pharm Des* 2014;20:3563-3578.

Javle M, Rashid A, Churi C, Kar S, et al. Molecular characterization of gallbladder cancer using somatic mutation profiling. *Hum Pathol* 2014;45:701-708.

Ji J, Ling XB, Zhao Y, Hu Z, et al. A data-driven algorithm integrating clinical and laboratory features for the diagnosis and prognosis of necrotizing enterocolitis. *PLoS One* 2014;9:e89860.

Kabbani LS, West CA, Viau D, Nypaver TJ, et al. Survival after repair of pararenal and paravisceral abdominal aortic aneurysms. *J Vasc Surg* 2014;59:1488-1494.

Karmonik C, Partovi S, Schmack B, Weymann A, et al. Comparison of hemodynamics in the ascending aorta between pulsatile and continuous flow left ventricular assist devices using computational fluid dynamics based on computed tomography images. *Artif Organs* 2014;38:142-148.

Kaseb AO, Shah NN, Hassabo HM, Morris JS, et al. Reassessing hepatocellular carcinoma staging in a changing patient population. *Oncology* 2014;86:63-71.

Kaseb AO, Xiao L, Hassan MM, Chae YK, et al. Development and validation of insulin-like growth factor-1 score to assess hepatic reserve in hepatocellular carcinoma. *J Natl Cancer Inst* 2014;106:pii: dju088.

Kayyal TA, Wolfswinkel EM, Weathers WM, Capehart SJ, et al. Treatment effects of dexmedetomidine and ketamine on postoperative analgesia after cleft palate repair. *Craniofacial Trauma Reconstr* 2014;7:131-138.

Khaderi S, Guiteau J, Cotton RT, O'Mahony C, et al. Role of liver transplantation in the management of hepatoblastoma in the pediatric population. *World J Transplant* 2014;4:294-298.

Khaderi S, Khan R, Safdar Z, Stribling R, et al. Long-term follow-up of portopulmonary hypertension patients after liver transplantation. *Liver Transpl* 2014;20:724-727.

Khaderi S, Shepherd R, Goss JA, Leung DH. Hepatitis C in the pediatric population: transmission, natural history, treatment and liver transplantation. *World J Gastroenterol* 2014;20:11281-11286.

Khechoyan DY, Saber NR, Burge J, Fattah A, et al. Surgical outcomes in craniostylosis reconstruction: the use of prefabricated templates in cranial vault remodelling. *J Plast Reconstr Aesthet Surg* 2014;67:9-16.

Killion E, Mohan K, Lee EI. A review of vascular anomalies: genetics and common syndromes. *Semin Plast Surg* 2014;28:64-68.

Koshkina NV, Briggs K, Palalon F, Curley SA. Autophagy and enhanced chemosensitivity in experimental pancreatic cancers induced by noninvasive radiofrequency field treatment. *Cancer* 2014;120:480-491.

Kougias P, Sharath S, Barshes NR, Lowery B, et al. Impact of cumulative intravascular contrast exposure on renal function in patients with occlusive and aneurysmal vascular disease. *J Vasc Surg* 2014;59:1644-1650.

Kretlow JD, Brown RH, Wolfswinkel EM, Xue AS, et al. Salvage of infected left ventricular assist device with antibiotic beads. *Plast Reconstr Surg* 2014;133:28e-38e.

Kueht M, Mazzotti M, Slater B, O'Mahony C, et al. Thoracoscopic repair of right-sided diaphragmatic hernia after liver transplantation for hepatoblastoma. *J Pediatr Surg Case Rep* 2014;2:219-221.

Lee EI. Vascular anomalies. *Semin Plast Surg* 2014;28:47-48.

Lee EI, Ahn TJ. Mild ptosis correction with the stitch method during incisional double fold formation. *Arch Plast Surg* 2014;41:71-76.

Lee EI, Chao AH, Skoracki RJ, Yu P, et al. Outcomes of calvarial reconstruction in cancer patients. *Plast Reconstr Surg* 2014;133:675-682.

Lee EI, Kim NH, Park RH, Park JB, et al. The relationship between eyebrow elevation and height of the palpebral fissure: should postoperative brow descent be taken into consideration when determining the amount of blepharoptosis correction? *Arch Aesthetic Plast Surg* 2014;20:20-25.

Lee EI, Withers EH. Geometric nipple reduction technique: an approach to management of nipple hypertrophy. *J Plast Reconstr Aesthet Surg* 2014;67:1301-1303.

Leen AM, Sukumaran S, Watanabe N, Mohammed S, et al. Reversal of tumor immune inhibition using a chimeric cytokine receptor. *Mol Ther* 2014;22:1211-1220.

LeMaire SA. Individualized treatment strategies for patients with aortic valve disease and porcelain aorta. *J Thorac Cardiovasc Surg* 2014;149:134-136.

Letra A, Maili L, Mulliken JB, Buchanan E, et al. Further evidence suggesting a role for variation in ARHGAP29 variants in nonsyndromic cleft lip/palate. *Birth Defects Res A Clin Mol Teratol* 2014;100:679-685.

Li LT, Brahmhatt R, Hicks SC, Dávila JA, et al. Prevalence of surgical site infection at the stoma site following four skin closure techniques: a retrospective cohort study. *Dig Surg* 2014;31:73-78.

Li LT, Jafrani RJ, Becker NS, Berger RL, et al. Outcomes of acute versus elective primary ventral hernia repair. *J Trauma Acute Care Surg* 2014;76:523-528.

Li Y, Fallon SC, Helmrath MA, Gilger M, et al. Surgical treatment of infantile achalasia: a case report and literature review. *Pediatr Surg Int* 2014;30:677-679.

Liang MK, Berger RL, Nguyen MT, Hicks SC, et al. Outcomes with porcine acellular dermal matrix versus synthetic mesh and suture in complicated open ventral hernia repair. *Surg Infect (Larchmt)* 2014;15:506-512.

Liang MK, Li LT, Nguyen MT, Bet al. Abdominal reoperation and mesh explantation following open ventral hernia repair with mesh. *Am J Surg* 2014;208:670-676.

Liao JM, Ercheagaray JM, Williams ST, Berger DH, et al. Thomas EJ. Assessing medical students' perceptions of patient safety: the medical student safety attitudes and professionalism survey. *Acad Med* 2014;89:343-351.

Lin Y-C, Lu L-T, Chen H-Y, Duan X, et al. SCP phosphatases suppress renal cell carcinoma by stabilizing PML and inhibiting mTOR/HIF signaling. *Cancer Res* 2014;74:6935-6946.

López ME, Fallon SC, Lee TC, Rodríguez JR, et al. Management of the pediatric spontaneous pneumothorax: is primary surgery the treatment of choice? *Am J Surg* 2014;208:571-576.

Lorts A, Zafar F, Adachi I, Morales DL. Mechanical assist devices in neonates and infants. *Semin Thorac Cardiovasc Surg Pediatr Card Surg Annu* 2014;17:91-95.

Lucey MR, Vierling JM. Clinical presentation and natural history of autoimmune hepatitis. *Clinical Liver Disease* 2014;3:9-11.

Lundquist CM, Loo C, Meraz IM, Cerda JD, et al. Characterization of free and porous silicon-encapsulated superparamagnetic iron oxide nanoparticles as platforms for the development of theranostic vaccines. *Med Sci (Basel)* 2014;2:51-69.

Mallidi HR, Anand J, Cohn WE. State of the art of mechanical circulatory support. *Tex Heart Inst J* 2014;41:115-120.

Manns MP, McCone J, Davis MN, Rossaro L, Set al. Overall safety profile of boceprevir plus peginterferon alfa-2b and ribavirin in patients with chronic hepatitis C genotype 1: a combined analysis of 3 phase 2/3 clinical trials. *Liver Int* 2014;34:707-719.

Manns MP, Vierling JM, Bacon BR, Bruno S, et al. The combination of MK-5172, peginterferon, and ribavirin is effective in treatment-naïve patients with hepatitis C virus genotype 1 infection without cirrhosis. *Gastroenterology* 2014;147:366-376.e366.

Manson PN, Hollier L, Schubert W. CMF Classification. Craniomaxillofac Trauma Reconstr 2014;7:S001-s003.

Marshall CL, Petersen NJ, Naik AD, Vander Velde N, et al. Implementation of a regional virtual tumor board: a prospective study evaluating feasibility and provider acceptance. *Telemed J E Health* 2014;20:705-711.

Massarweh NN, Chiang YJ, Xing Y, Chang GJ, et al. Association between travel distance and metastatic disease at diagnosis among patients with colon cancer. *J Clin Oncol* 2014;32:942-948.

Massarweh NN, Hu CY, You YN, Bednarski BK, et al. Risk-adjusted pathologic margin positivity rate as a quality indicator in rectal cancer surgery. *J Clin Oncol* 2014;32:2967-2974.

Mathison M, Singh VP, Gersch RP, Ramirez MO, et al. "Triplet" polycistronic vectors encoding Gata4, Mef2c, and Tbx5 enhances postinfarct ventricular functional improvement compared with singlet vectors. *J Thorac Cardiovasc Surg* 2014;148:1656-1664.e1652.

Matos JM, Barshes NR, McCoy S, Pisimisis G, et al. Validating common carotid stenosis by duplex ultrasound with carotid angiogram or computed tomography scan. *J Vasc Surg* 2014;59:435-439.

Matos JM, de la Cruz KI, Ouzounian M, Preventza O, et al. Endovascular repair as a bridge to surgical repair of an aortobronchial fistula complicating chronic residual aortic dissection. *Tex Heart Inst J* 2014;41:198-202.

Mazloom A, Louis CU, Nuchtern J, Kim E, et al. Radiation therapy to the primary and postinduction chemotherapy MIBC-Avid sites in high-risk neuroblastoma. *Int J Radiat Oncol Biol Phys* 2014;90:858-862.

McConnell KI, Rhudy J, Yokoi K, Gu J, et al. Enhanced gene delivery in porcine vasculature tissue following incorporation of adeno-associated virus nanoparticles into porous silicon microparticles. *J Control Release* 2014;194:113-121.

McCully BH, Fabricant L, Geraci T, Greenbaum A, et al. Complete cervical spinal cord injury above C6 predicts the need for tracheostomy. *Am J Surg* 2014;207:664-668; discussion 668-669.

McGann JC, Oyer JA, Garg S, Yao H, et al. Polycomb- and REST-associated histone deacetylases are independent pathways toward a mature neuronal phenotype. *Elife* 2014;3:e04235.

McKenzie ED, Khan MS, Dietzman TW, Guzmán-Pruneda FA, et al. Surgical pulmonary valve replacement: A benchmark for outcomes comparisons. *J Thorac Cardiovasc Surg* 2014;148:1450-1453.

Meraz IM, Hearnden CH, Liu X, Yang M, et al. Multivalent presentation of MPL by porous silicon microparticles favors T helper 1 polarization enhancing the anti-tumor efficacy of doxorubicin nanoliposomes. *PLoS One* 2014;9:e94703.

Meraz IM, Savage DJ, Segura-Ibarra V, Li J, et al. Adjuvant cationic liposomes presenting MPL and IL-12 induce cell death, suppress tumor growth, and alter the cellular phenotype of tumors in a murine model of breast cancer. *Mol Pharm* 2014;11:3484-3491.

Mery CM, Lawrence SM, Krishnamurthy R, Sexson-Tejtel SK, et al. Anomalous aortic origin of a coronary artery: toward a standardized approach. *Seminars in Thoracic and Cardiovascular Surgery* 2014;26:110-122.

Mery CM, Moffett BS, Khan MS, Zhang W, et al. Incidence and treatment of chylothorax after cardiac surgery in children: analysis of a large multi-institution database. *J Thorac Cardiovasc Surg* 2014;147:678-686.e671.

Mery CM, Molina KM, Krishnamurthy R, Fraser Jr. CD, et al. Pulmonary artery resuscitation for isolated ductal origin of a pulmonary artery. *J Thorac Cardiovasc Surg* 2014;148:2235-2244 e2231.

Michalsky MP, Inge TH, Teich S, Eneli I, et al. Adolescent bariatric surgery program characteristics: the Teen Longitudinal Assessment of Bariatric Surgery (Teen-LABS) study experience. *Semin Pediatr Surg* 2014;23:5-10.

Moazami N, Steffen RJ, Naka Y, Jorde U, et al. Lessons learned from the first fully magnetically levitated centrifugal LVAD trial in the United States: the DuraHeart trial. *Ann Thorac Surg* 2014;98:541-547.

Mohammed S, Evans C, VanBuren G, Hodges SE, et al. Treatment of bacteriobilia decreases wound infection rates after pancreaticoduodenectomy. *HPB (Oxford)* 2014;16:592-598.

Mohammed S, Van Buren II G, Fisher WE. Pancreatic cancer: advances in treatment. *World J Gastroenterol* 2014;20:9354-9360.

Mohiuddin K, Haneuse S, Sofer T, Gill R, et al. Relationship between margin distance and local recurrence among patients undergoing wedge resection for small (</=2 cm) non-small cell lung cancer. *J Thorac Cardiovasc Surg* 2014;147:1169-1175.

Monson LA, Khechayan DY, Buchanan EP, Hollier Jr. LH. Secondary lip and palate surgery. *Clin Plast Surg* 2014;41:301-309.

Morris LF, Lee S, Warneke CL, Abadin SS, Set al. Fewer adverse events after reoperative parathyroidectomy associated with initial minimally invasive parathyroidectomy. *Am J Surg* 2014;208:850-855.

Muir AJ, Arora S, Everson G, Flisiak R, et al. A randomized phase 2b study of peginterferon lambda-1a for the treatment of chronic HCV infection. *J Hepatol* 2014;61:1238-1246.

Naik AD, Trautner BW. Doing the right thing for asymptomatic bacteriuria: knowing less leads to doing less. *Clin Infect Dis* 2014;58:984-985.

Najjar SS, Slaughter MS, Pagani FD, Starling RC, et al. An analysis of pump thrombus events in patients in the HeartWare ADVANCE bridge to transplant and continued access protocol trial. *J Heart Lung Transplant* 2014;33:23-34.

Nascimbene A, Hernández R, George JK, Parker A, et al. Association between cell-derived microparticles and adverse events in patients with nonpulsatile left ventricular assist devices. *J Heart Lung Transplant* 2014;33:470-477.

Nestler F, Bradley AP, Wilson SJ, Timms DL, et al. A hybrid mock circulation loop for a total artificial heart. *Artif Organs* 2014;38:775-782.

Nguyen MT, Berger RL, Hicks SC, Dávila JA, et al. Comparison of outcomes of synthetic mesh vs suture repair of elective primary ventral herniorrhaphy: a systematic review and meta-analysis. *JAMA Surg* 2014;149:415-421.

Nguyen MT, Phatak UR, Li LT, Hicks SC, et al. Review of stoma site and midline incisional hernias after stoma reversal. *J Surg Res* 2014;190:504-509.

Nguyen NT, Barshes NR, Bechara CF, Pisimisis GT. Natural history of an intra-aortic permanent inferior vena cava filter. *J Vasc Surg* 2014;60:784.

Niu MC, Morris SA, Morales DL, Fraser Jr. CD, et al. Low incidence of arrhythmias in the right ventricular infundibulum sparing approach to tetralogy of Fallot repair. *Pediatr Cardiol* 2014;35:261-269.

Obchoei S, Sawanyawisuth K, Wongkham C, Kasinrerker W, et al. Secreted cyclophilin A mediates G1/S phase transition of cholangiocarcinoma cells via CD147/ERK1/2 pathway. *Tumor Biology* 2014:1-11.

Omer S, Cornwell LD, Rosengart TK, Kelly RF, et al. Completeness of coronary revascularization and survival: Impact of age and off-pump surgery. *J Thorac Cardiovasc Surg* 2014;148:1307-1315.e1301.

Omer S, Preventza O, Cornwell LD. Out of sight, out of mind. Commentary on "intensive care unit design and mortality in trauma patients". *J Surg Res* 2014;190:413-414.

Oosterloo BC, Premkumar M, Stoll B, Olutoye O, et al. Dual purpose use of preterm piglets as a model of pediatric GI disease. *Vet Immunol Immunopathol* 2014;159:156-165.

Ortiz J, Chang LC, Tolpin DA, Minard CG, et al. Randomized, controlled trial comparing the effects of anesthesia with propofol, isoflurane, desflurane and sevoflurane on pain after laparoscopic cholecystectomy. *Braz J Anesthesiol* 2014;64:145-151.

Padda SK, Burt BM, Trakul N, Wakelee HA. Early-stage non-small cell lung cancer: surgery, stereotactic radiosurgery, and individualized adjuvant therapy. *Semin Oncol* 2014;41:40-56.

Park S-K, Xiang Y, Feng X, Garrard WT. Pronounced cohabitation of active immunoglobulin genes from three different chromosomes in transcription factories during maximal antibody synthesis. *Genes & Development* 2014;28:1159-1164.

Patel AK, Lazar DA, Burrin DG, Smith EO, et al. Abdominal near-infrared spectroscopy measurements are lower in preterm infants at risk for necrotizing enterocolitis. *Pediatr Crit Care Med* 2014;15:735-741.

Phatak UR, Li LT, Karanjawala B, Chang GJ, et al. Systematic review of educational interventions for ostomates. *Dis Colon Rectum* 2014;57:529-537.

Philip J, Burgman C, Bavare A, Akcan-Arikan A, et al. Nature of the underlying heart disease affects survival in pediatric patients undergoing extracorporeal cardiopulmonary resuscitation. *J Thorac Cardiovasc Surg* 2014;148:2367-2372.

Pickrell BB, Hollier Jr. LH. Review of "Strategies for Reducing Regional Variation in the Use of Surgery-A Systematic Review" by Reames BN, Shubeck SP, Birkmeyer JD in *Annals of Surgery*. 259: 616-627; 2014. *J Craniofac Surg* 2014.

Pisimisis GT, Kougiass P, Barshes NR, Bechara CF. Surgeon-modified fenestrated endograft to treat ruptured juxtarenal aneurysm. *JAMA Surg* 2014;149:447-449.

Popma JJ, Adams DH, Reardon MJ, Yakubov SJ, et al. Transcatheter aortic valve replacement using a self-expanding bioprosthesis in patients with severe aortic stenosis at extreme risk for surgery. *J Am Coll Cardiol* 2014;63:1972-1981.

Posey JE, Dariya V, Edmonds JL, Lee EI, et al. Syngnathia and obstructive apnea in a case of popliteal pterygium syndrome. *European Journal of Pediatrics* 2014;173:1-4.

Poynter JA, Bondarenko I, Austin EH, DeCampli WM, Jet al. Repair of anomalous aortic origin of a coronary artery in 113 patients: a congenital heart surgeons' society report. *World J Pediatr Congenit Heart Surg* 2014;5:507-514.

Preventza O, Cervera R, Cooley DA, Bakaeen FG, et al. Acute type I aortic dissection: traditional versus hybrid repair with antegrade stent delivery to the descending thoracic aorta. *J Thorac Cardiovasc Surg* 2014;148:119-125.

Preventza O, García A, Cooley DA, Tuluca A, et al. Reoperations on the total aortic arch in 119 patients: short- and mid-term outcomes, focusing on composite adverse outcomes and survival analysis. *J Thorac Cardiovasc Surg* 2014;148:2967-2972.

Preventza O, Henry MJ, Cheong BY, Coselli JS. Endovascular repair of the ascending aorta: when and how to implement the current technology. *Ann Thorac Surg* 2014;97:1555-1560.

Preventza O, Mohamed AS, Cooley DA, Rodríguez V, et al. Homograft use in reoperative aortic root and proximal aortic surgery for endocarditis: a 12-year experience in high-risk patients. *J Thorac Cardiovasc Surg* 2014;148:989-994.

Preventza O, Mohammed S, Cheong BY, González L, et al. Endovascular therapy in patients with genetically triggered thoracic aortic disease: applications and short- and mid-term outcomes. *Eur J Cardiothorac Surg* 2014;46:248-253; discussion 253.

Prochazka AV, Fink AS, Bartenfeld D, Henderson WG, et al. Patient perceptions of surgical informed consent: is repeat back helpful or harmful? *J Patient Saf* 2014;10:140-145.

Rahaghi FN, Lazea D, Dihya S, San José Estepar R, et al. Preoperative pulmonary vascular morphology and its relationship to postpneumonectomy hemodynamics. *Acad Radiol* 2014;21:704-710.

Raouf M, Aloia TA, Vauthey JN, Curley SA. Morbidity and mortality in 1,174 patients undergoing hepatic parenchymal transection using a stapler device. *Ann Surg Oncol* 2014;21:995-1001.

Raouf M, Corr SJ, Zhu C, Cisneros BT, et al. Gold nanoparticles and radiofrequency in experimental models for hepatocellular carcinoma. *Nanomedicine* 2014;10:1121-1130.

Raouf M, Zhu C, Cisneros BT, Liu H, et al. Hyperthermia inhibits recombination repair of gemcitabine-stalled replication forks. *J Natl Cancer Inst* 2014;106.

Reardon MJ, Adams DH, Coselli JS, Deeb GM, et al. Self-expanding transcatheter aortic valve replacement using alternative access sites in symptomatic patients with severe aortic stenosis deemed extreme risk of surgery. *J Thorac Cardiovasc Surg* 2014;148:2869-2876.

Redding S, Li X, Wu G, Ko C, et al. Transforming growth factor-B1 (TGF-B1) and fibroblast growth factor-7 (FGF-7) elevated in ovaries of selective theca cell phosphatase and tensin homolog mutant (tPtenMT) mice with PCOS-like phenotype. *Fertility and Sterility* 2014;102:e40-e41.

Remien CH, Sussman NL, Adler FR. Mathematical modelling of chronic acetaminophen metabolism and liver injury. *Math Med Biol* 2014;31:302-317.

Reul JT, Reul GJ, Frazier OH. Carotid-bulb thrombus and continuous-flow left ventricular assist devices: a novel observation. *J Heart Lung Transplant* 2014;33:107-109.

Rhee C, Fraser III C, Kibler K, Easley R, et al. The ontogeny of cerebrovascular pressure autoregulation in premature infants. *J Perinatol* 2014;34:926-931.

Rockey DC, Vierling JM, Mantry P, Ghabril M, et al. Randomized, double-blind, controlled study of glycerol phenylbutyrate in hepatic encephalopathy. *Hepatology* 2014;59:1073-1083.

Rodríguez JR, Masand P, Kellermayer R. Upper endoscopic diagnosis of a jejuno-colonic fistula. *J Pediatr Gastroenterol Nutr* July 30, 2014.

Rojas Y, Guillerman RP, Zhang W, Vasudevan SA, et al. Relapse surveillance in AFP-positive hepatoblastoma: re-evaluating the role of imaging. *Pediatr Radiol* 2014;44:1275-1280.

Rosengart TK. Total arterial revascularization: when will its time come? *J Thorac Cardiovasc Surg* 2014;148:1244-1245.

Rosengart TK. The 1000th VAD, the great rivalry, and the grand experiment of the Texas Medical Center. *Semin Thorac Cardiovasc Surg* 2014;26:1-3.

Rosengart TK. The 1,000th VAD, the great rivalry, and the grand experiment of the Texas Medical Center. *J Thorac Cardiovasc Surg* 2014;147:1745-1747.

Rosengart TK. The 1,000 th VAD, the great rivalry, and the grand experiment of the Texas Medical Center. *Tex Heart Inst J* 2014;41:112-114.

Ruano R, Ali RA, Patel P, Cass D, et al. Fetal endoscopic tracheal occlusion for congenital diaphragmatic hernia: indications, outcomes, and future directions. *Obstet Gynecol Surv* 2014;69:147-158.

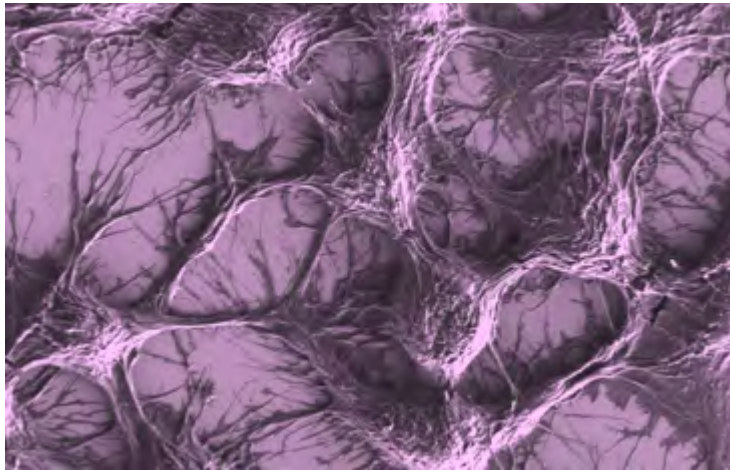
Ruano R, Cass D, Rieger M, Javadian P, et al. Fetal laryngoscopy to evaluate vocal folds in a fetus with congenital high airway obstruction syndrome (CHAOS). *Ultrasound Obstet Gynecol* 2014;43:102-103.

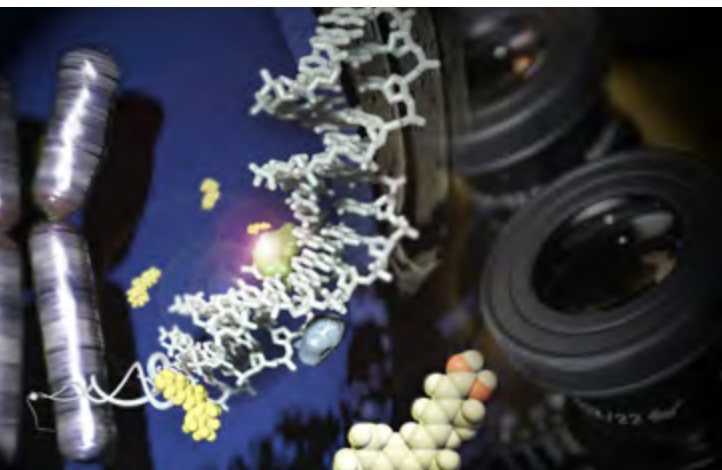
Ruano R, Lazar DA, Cass DL, Zamora JJ, L et al. Fetal lung volume and quantification of liver herniation by magnetic resonance imaging in isolated congenital diaphragmatic hernia. *Ultrasound Obstet Gynecol* 2014;43:662-669.

Sabour D, Xu X, Chung AC, Le Menuet D, et al. Germ cell nuclear factor regulates gametogenesis in developing gonads. *PLoS One* 2014;9:e103985.

Sadler C, Gow KW, Beierle EA, Doski JJ, et al. Parathyroid carcinoma in more than 1,000 patients: a population-level analysis. *Surgery* 2014;156:1622-1630.

Salami AC, Barden GM, Castillo DL, Hanna M, et al. Establishment of a regional virtual tumor board program to improve the process of care for patients with hepatocellular carcinoma. *J Oncol Pract* 2014;pii: JOP2014.000679.





Salmanian B, Shamshirsaz AA, Cass DL, Javadian P, et al. Fetal cardiac tamponade in a case of right-side congenital diaphragmatic hernia. *Obstet Gynecol* 2014;123:447-450.

Sauerhammer TM, Seruya M, Basci D, Rogers GF, et al. Endocortical plating of the bandeau during fronto-orbital advancement provides safe and effective osseous stabilization. *J Craniofac Surg* 2014;25:1341-1345.

Sauerhammer TM, Seruya M, Ropper AE, Oh AK, et al. Craniectomy gap patency and neosuture formation following endoscopic suturectomy for unilateral coronal craniosynostosis. *Plast Reconstr Surg* 2014;134:81e-91e.

Sayama C, Vadivelu S, Livingston A, Ho A, et al. Soft-tissue defects after spinal instrumentation in 5 children: risk factors, management strategies, and outcomes. *J Neurosurg Pediatr* 2014;14:644-653.

Schaffer JM, Chiu P, Singh SK, Oyer PE, Ret al. Combined heart-liver transplantation in the MELD era: do waitlisted patients require exception status? *Am J Transplant* 2014;14:647-659.

Schaffer JM, Chiu P, Singh SK, Oyer PE, et al. Heart and combined heart-kidney transplantation in patients with concomitant renal insufficiency and end-stage heart failure. *Am J Transplant* 2014;14:384-396.

Segura AM, Dris L, Massin EK, Clubb FJ, et al. Heart failure in remission for more than 13 years after removal of a left ventricular assist device. *Tex Heart Inst J* 2014;41:389-394.

Segura AM, Frazier OH, Buja LM. Fibrosis and heart failure. *Heart Fail Rev* 2014;19:173-185.

Segura AM, Radovancevic R, Aguayo A, Frazier OH, et al. Variability in fibrosis in tissue samples obtained during diaphragmatic and apical LVAD implantation. *Cardiovasc Pathol* 2014;23:121-125.

Segura AM, Radovancevic R, Demirozu ZT, Frazier OH, et al. Granulomatous myocarditis in severe heart failure patients undergoing implantation of a left ventricular assist device. *Cardiovasc Pathol* 2014;23:17-20.

Sepúlveda A, Buchanan EP. Vascular tumors. *Semin Plast Surg* 2014;28:49-57.

Serda R, Savage D, Corr S, Curley S. TH-C-17A-11: hyperthermia-driven immunotherapy using non-invasive radiowaves. *Medical Physics* 2014;41:556-556.

Seruya M, Shen SH, Wang LL, Penington AJ, et al. Three patterns of fronto-orbital remodeling for metopic synostosis: comparison of cranial growth outcomes. *Plast Reconstr Surg* 2014;134:787e-795e.

Seruya M, Tran J, Kumar S, Forrest CR, et al. Computed tomography-based morphometric analysis of extended strip craniectomy for sagittal synostosis. *J Craniofac Surg* 2014;25:42-47.

Shamszad P, Gospin TA, Hong BJ, McKenzie ED, et al. Impact of preoperative risk factors on outcomes after Norwood palliation for hypoplastic left heart syndrome. *J Thorac Cardiovasc Surg* 2014;147:897-901.

Sheikh F, Kim ME, Zamora JJ, Olutoye OO. Non-operative management of a rare diagnosis of splenic torsion in a child with a history of giant omphalocele: a case report and literature review. *Pediatr Surg Int* 2014;29:12.

Shen T, Sun C, Zhang Z, Xu N, et al. Specific control of BMP signaling and mesenchymal differentiation by cytoplasmic phosphatase PPM1H. *Cell Res* 2014;24:727-741.

Shindoh J, Tzeng CW, Aloia TA, Curley SA, et al. Safety and efficacy of portal vein embolization before planned major or extended hepatectomy: an institutional experience of 358 patients. *J Gastrointest Surg* 2014;18:45-51.

Slater BJ, Fallon SC, Brandt ML, López ME. H-type anorectal malformation: case report and review of the literature. *J Pediatr Surg Case Rep* 2014;2:89-92.

Slater BJ, Pimpalwar A. Laparoscopic gastroscopic transgastric cystogastrostomy and cholecystectomy for pseudopancreatic cyst after gallstone pancreatitis in children. *European J Pediatr Surg Rep* 2014;2:10-12.

Strand DW, Liang Y-Y, Yang F, Barron DA, et al. TGF- β induction of FGF-2 expression in stromal cells requires integrated Smad3 and MAPK pathways. *Am J Clin Exp Urol* 2014;2:239-248.

Sugarbaker DJ. Clarity of purpose, focused attention: the essence of excellence. *J Thorac Cardiovasc Surg* 2014;148:764-771.

Sugarbaker DJ, Richards WG, Bueno R. Extrapleural pneumonectomy in the treatment of epithelioid malignant pleural mesothelioma: novel prognostic implications of combined N1 and N2 nodal involvement based on experience in 529 patients. *Ann Surg* 2014;260:577-580.

Sun MY, Yetman MJ, Lee TC, Chen Y, et al. Specificity and efficiency of reporter expression in adult neural progenitors vary substantially among nestin-CreER(T2) lines. *J Comp Neurol* 2014;522:1191-1208.

Sussman NL, Kelly JH. Artificial liver. *Clin Gastroenterol Hepatol* 2014;12:1439-1442.

Sussman NL, Remien CH, Kanwal F. The end of hepatitis C. *Clin Gastroenterol Hepatol* 2014;12:533-536.

Sylvester KG, Ling XB, Liu GY, Kastenber ZJ, et al. A novel urine peptide biomarker-based algorithm for the prognosis of necrotizing enterocolitis in human infants. *Gut* 2014;63:1284-1292.

Sylvester KG, Ling XB, Liu GY, Kastenber ZJ, et al. Urine protein biomarkers for the diagnosis and prognosis of necrotizing enterocolitis in infants. *J Pediatr* 2014;164:607-612.e601-607.

Tapia NM, Milewicz A, Whitney SE, Liang MK, et al. Identifying and Eliminating Deficiencies in the General Surgery Resident Core Competency Curriculum. *JAMA Surg* 2014;149:514-518.

Tarpley MJ, Van Way III C, Friedell M, Deveney K, et al. The role of a preliminary PGY-3 in general surgery training. *J Surg Educ* 2014;71:e139-e143.

Tessier ME, Harpavat S, Shepherd RW, Hiremath GS, et al. Beyond the pediatric end-stage liver disease system: solutions for infants with biliary atresia requiring liver transplant. *World J Gastroenterol* 2014;20:11062-11068.

Thomas RM, Aloia TA, Truty MJ, Tseng WH, et al. Treatment sequencing strategy for hepatic epithelioid haemangioendothelioma. *HPB (Oxford)* 2014;16:677-685.

Tonkin JA, Shamsudeen S, Brown MR, Serda RE, et al. Optical tracking of drug release from porous silicon delivery vectors. *IET Optoelectronics* 2014;8:113-116.

Totoki Y, Tatsuno K, Covington KR, Ueda H, et al. Trans-ancestry mutational landscape of hepatocellular carcinoma genomes. *Nat Genet* 2014;46:1267-1273.

Trautner BW, Grigoryan L. Approach to a positive urine culture in a patient without urinary symptoms. *Infect Dis Clin North Am* 2014;28:15-31.

Trautner BW, Petersen NJ, Hysong SJ, Horwitz D, et al. Overtreatment of asymptomatic bacteriuria: identifying provider barriers to evidence-based care. *Am J Infect Control* 2014;42:653-658.

Tuluca A, Omer S, Cornwell L, Blaustein A, et al. Aortic valve leaflet entrapment by a percutaneous closure device. *Ann Thorac Surg* 2014;98:e23-25.

Tzeng CW, Cooper AB, Vauthey JN, Curley SA, et al. Predictors of morbidity and mortality after hepatectomy in elderly patients: analysis of 7621 NSQIP patients. *HPB (Oxford)* 2014;16:459-468.

Van Buren II G, Bloomston M, Hughes SJ, Winter J, et al. A randomized prospective multicenter trial of pancreaticoduodenectomy with and without routine intraperitoneal drainage. *Ann Surg* 2014;259:605-612.

Velotta JB, Vásquez CR, Sugarbaker DJ. Transhiatal esophagectomy after previous right pneumonectomy. *J Thorac Cardiovasc Surg* 2014;148:e150-152.

Vierling JM. Immunopathogenesis: insights for current and future therapies. *Clinical Liver Disease* 2014;3:24-28.

Vierling JM, Davis M, Flamm S, Gordon SC, et al. Boceprevir for chronic HCV genotype 1 infection in patients with prior treatment failure to peginterferon/ribavirin, including prior null response. *J Hepatol* 2014;60:748-756.

Vierling JM, Zeuzem S, Poordad F, Bronowicki JP, et al. Safety and efficacy of boceprevir/peginterferon/ribavirin for HCV G1 compensated cirrhotics: meta-analysis of 5 trials. *J Hepatol* 2014;61:200-209.

Vlaardingerbroek H, Ng K, Stoll B, Benight N, et al. New generation lipid emulsions prevent PNALD in chronic parenterally fed preterm pigs. *J Lipid Res* 2014;55:466-477.

Wang H, Wang X, Archer TK, Zwaka TP, et al. GDNF-dependent activation of cyclin D1 expression via repression of Mir302a during ESC differentiation. *Stem Cells* 2014;32:1527-1537.

Ware MJ, Godin B, Singh N, Majithia R, et al. Analysis of the influence of cell heterogeneity on nanoparticle dose response. *ACS Nano* 2014;8:6693-6700.

Weathers WM, Khechayan D, Wolfswinkel EM, Mohan K, et al. A novel quantitative method for evaluating surgical outcomes in craniosynostosis: pilot analysis for metopic synostosis. *Craniofacial Trauma Reconstr* 2014;7:1-8.

Webb JB, Fallon SC, López ME, Boswell HB, et al. The management of an ectopic ovary in the inguinal canal: literature review and discussion. *Pediatr Surg Int* 2014;30:1075-1078.

Wingate JR, Adachi I, Mossad EB. CASE X-2014: tetralogy of Fallot with severe cyanosis in an infant with trisomy 18: ethical dilemmas in the perioperative period. *J Cardiothorac Vasc Anesth* 2014;28:1677-1685.

Wolfswinkel EM, Weathers WM, Siy RW, Horowitz KS, et al. Less is more in the nonoperative management of complete brachial artery transection after supracondylar humeral fracture. *Ann Vasc Surg* 2014;28:739.e711-736.

Wu D, Coselli JS, Johnson ML, LeMaire SA. Hepatopancreaticobiliary values after thoracoabdominal aneurysm repair. *Aorta* 2014;2:135-142.

Xiao N, Jenkins TM, Nehus E, Inge TH, et al. Kidney function in severely obese adolescents undergoing bariatric surgery. *Obesity* 2014;22:2319-2325.

Xue AS, Koshy JC, Weathers WM, Wolfswinkel EM, et al. Local foreign-body reaction to commercial biodegradable implants: an in vivo animal study. *Craniofacial Trauma Reconstr* 2014;7:27-34.

Xue J, Lin X, Chiu W-T, Chen Y-H, et al. Sustained activation of SMAD3/SMAD4 by FOXM1 promotes TGF-beta-dependent cancer metastasis. *J Clin Invest* 2014;124:564-579.

Yan TD, Tian DH, LeMaire SA, Hughes GC, et al. Standardizing clinical end points in aortic arch surgery: a consensus statement from the International Aortic Arch Surgery Study Group. *Circulation* 2014;129:1610-1616.

Yan TD, Tian DH, LeMaire SA, Misfeld M, et al. The ARCH projects: design and rationale (IAASSG 001). *Eur J Cardiothorac Surg* 2014;45:10-16.

Yevich SM, Lee SR, Scott BG, Shaltoni HM, et al. Emergency endovascular management of penetrating gunshot injuries to the arteries in the face and neck: a case series and review of the literature. *J Neurointerv Surg* 2014;6:42-46.

Zamora JJ, Fallon SC, Orth RC, Kim ME, et al. Overuse of fluoroscopic gastrostomy studies in a children's hospital. *J Surg Res* 2014;190:598-603.

Zamora JJ, Olutoye OO, Cass DL, Fallon SC, et al. Prenatal MRI fetal lung volumes and percent liver herniation predict pulmonary morbidity in congenital diaphragmatic hernia (CDH). *J Pediatr Surg* 2014;49:688-693.

Zamora JJ, Sheikh F, Cassady CI, Olutoye OO, et al. Fetal MRI lung volumes are predictive of perinatal outcomes in fetuses with congenital lung masses. *J Pediatr Surg* 2014;49:853-858; discussion 858.

Zamora JJ, Sheikh F, Olutoye OO, Cassady CI, et al. Mainstem bronchial atresia: a lethal anomaly amenable to fetal surgical treatment. *J Pediatr Surg* 2014;49:706-711.

Zamora JJ, Shekerdemian L, Fallon SC, Olutoye OO, et al. Outcomes comparing dual-lumen to multisite venovenous ECMO in the pediatric population: The Extracorporeal Life Support Registry experience. *J Pediatr Surg* 2014;49:1452-1457.

Zenati MA, Gaziano JM, Collins JF, Biswas K, et al. Choice of vein-harvest technique for coronary artery bypass grafting: rationale and design of the REGROUP trial. *Clin Cardiol* 2014;37:325-330.

Zhang S, Zhai Z, Yang Y, Zhu J, et al. Pulmonary embolism risk stratification by European Society of Cardiology is associated with recurrent venous thromboembolism: findings from a long-term follow-up study. *Int J Cardiol* October 5, 2014.

Zhao Y, Xiao M, Sun B, Zhang Z, et al. C-terminal domain (CTD) small phosphatase-like 2 modulates the canonical bone morphogenetic protein (BMP) signaling and mesenchymal differentiation via Smad dephosphorylation. *J Biol Chem* 2014;289:26441-26450.

Book Chapters

de la Cruz K, LeMaire S, Coselli J. Aortic Valve Resuspension and Graft Replacement of the Ascending Aorta and Proximal Hemiarch During Moderate Hypothermic Systemic Circulatory Arrest and Antegrade Cerebral Perfusion for Repair of Acute Aortic Dissection. In: Bonser RS, Pagano D, Haverich A, Mascaro J, editors. *Controversies in Aortic Dissection and Aneurysmal Disease*: Springer London; 2014. p. 217-25.

Gershwin ME, Vierling J, Manns M. The Future of Liver Immunology. In: Gershwin ME, Vierling JM, Manns MP, editors. *Liver Immunology*: Springer International Publishing; 2014. p. 463-70.

Gilani R. Acute Lower Limb Ischemia. *Cleveland Clinic Manual of Vascular Surgery*: Springer; 2014. p. 13-25.

Gordy S, Kozar RA. Metabolism in the Trauma Patient. *Surgical Metabolism*: Springer; 2014. p. 97-109.

LeMaire S, de la Cruz K, Coselli J. The Thoracoabdominal Aorta in Marfan Syndrome. In: Bonser RS, Pagano D, Haverich A, Mascaro J, editors. *Controversies in Aortic Dissection and Aneurysmal Disease*: Springer London; 2014. p. 423-34.

Raza A, Vierling J. Graft-Versus-Host Disease. In: Gershwin ME, Vierling JM, Manns MP, editors. *Liver Immunology*: Springer International Publishing; 2014. p. 425-41.

Committees

Executive Leadership

Dr. Todd Rosengart - Chair
Dr. Samir Awad
Dr. Faisal Bakaeen
Dr. David Berger
Dr. Mary Brandt
Dr. Johnny Chen
Dr. Joseph Coselli
Dr. Steven Curley
Dr. William Fisher
Dr. Charles Fraser Jr.
Dr. John Goss
Dr. Larry Hollier
Dr. Scott LeMaire
Dr. Kenneth Mattox
Dr. Charles McCollum
Dr. Allen Milewicz
Dr. Joseph Mills, Sr.
Dr. George Noon
Dr. Jed Nuchtern
Dr. Bradford Scott
Dr. David Sugarbaker
Dr. S. Rob Todd
Dr. Barbara Trautner
Dr. George Van Buren II
Dr. David Wesson

Faculty Appointments and Promotions

Dr. David Berger - Chair
Dr. Todd Rosengart - *ex officio*
Dr. Johnny Chen
Dr. William Fisher
Dr. Panagiotis Kougias
Dr. Joseph Mills Sr.
Dr. Oluyinka Olutoye
Dr. Bradford Scott
Dr. S. Rob Todd
Dr. John Vierling
Dr. Matthew Wall Jr.
Dr. David Wesson
Dr. Qizhi Cathy Yao

Education

Dr. Bradford Scott - Chair
Dr. Avo Artinyan
Dr. Neal Barshes
Dr. David Berger
Dr. Mary Brandt
Dr. Louisa Chiu
Dr. Joseph Coselli
Dr. Stephanie Gordy
Dr. Juliet Holder-Haynes
Dr. Larry Hollier
Dr. Shayan Izaddoost
Dr. Scott LeMaire
Dr. Konstantinos Makris
Dr. Kenneth Mattox
Dr. Mark Mazziotti
Dr. Charles McCollum
Dr. Joseph Mills Sr.
Dr. Bindi Naik-Mathuria
Dr. Jed Nuchtern
Dr. Carlos Mery
Dr. E. Dean McKenzie
Dr. Oluyinka Olutoye
Dr. Christine O'Mahony
Dr. Ross Reul
Dr. Todd Rosengart
Dr. Eric Silberfein
Dr. David Sugarbaker
Dr. James Suliburk
Dr. S. Rob Todd,
Dr. Barbara Trautner
Dr. George Van Buren II
Dr. R. Mario Vera
Dr. Jeremy Ward
Dr. David Wesson

Education Committee Residents and Fellows

Dr. Elias Kfoury
Dr. David Lazar
Dr. Jess Joyman
Dr. Celia Robinson
Dr. Julia Swanson
Dr. Thao Galvan
Dr. Kristy Hamilton
Dr. Jennifer Moffett

Dr. Carlos Palacio
Dr. Nicole Tapia
Dr. Paul Albini
Dr. Zachary Pallister
Dr. Somala Mohammed
Dr. Catherine Seger
Dr. Rachel Davis
Dr. Nader Zamani
Dr. Ahmed Khouqeer
Dr. Virginia Tran
Dr. Jessica Mayor
Dr. Jennifer Carpenter

Education Committee Medical Students

Adriana Gamboa Ayala
Michael Mederos

Research

Dr. Scott LeMaire - Chair
Dr. Neal Barshes
Dr. David Berger
Dr. Johnny Chen
Dr. William Cohn
Dr. Ramyar Gilani
Dr. John Goss
Dr. Shayan Izaddoost
Dr. Sundeep Keswani
Dr. Mónica López
Dr. Nader Massarweh
Dr. George Noon
Dr. Jed Nuchtern
Dr. Todd Rosengart
Dr. Rita Serda
Dr. Steve Singh
Dr. David Sugarbaker
Dr. James Suliburk
Dr. S. Rob Todd
Dr. Barbara Trautner
Dr. George Van Buren II
Dr. John Vierling
Dr. David Wesson

Revenue Cycle

Dr. Rodger Brown - Chair
Dr. Joseph Coselli
Dr. Kim de la Cruz
Dr. William Fisher
Dr. Shawn Groth
Dr. Scott LeMaire
Dr. Peter Luczyszyn
Dr. Abbas Rana
Dr. Todd Rosengart
Dr. Steve Singh
Dr. James Suliburk

Communication

Dr. Allen Milewicz - Chair
Dr. Rodger Brown
Dr. Johnny Chen
Dr. Scott LeMaire
Dr. Todd Rosengart
Dr. Norman Sussman
Dr. George Van Buren II

Clinical Practice

Dr. Samir Awad - Chair
Dr. George Van Buren II - Chair
Dr. Rodger Brown
Dr. Steven Curley
Dr. William Fisher
Dr. Shawn Groth
Dr. Joseph Mills Sr.
Dr. Todd Rosengart
Dr. David Sugarbaker
Dr. James Suliburk

Administrative Staff

Department Administrator

Stephanie L. Kearney

Division Administration

Mary Allen
Alan Stolz
Frank Taylor
Jason Madsen
Sarah Moser
Blake Gentile
Jag Grooms

Chairman's Office

Andre Hite
David Opheim
Rashad Mohammed
Peyton Davis
Dora García
Gabriel Downey

Education

Holly Church Shilstone
Ally Bremer
Jaye Chambers
Ashley Crummedyo
Sydney Webster
Cathryn Linn

Research Core

Malesa Jackson
Laurie Fondren
Eric Raap
Hoa Quach
Alicia Palao
Gerardo Buentello
Amy McElhaney
Michelle Almarez
Deborah Horwitz
Nina Yu
Reginya Knight
Qianzi Zhang
Emily Boeckman
Jonathan Nguyen

Clinical Practice

Sunayana Chopra
Lisa Icard
Philip Bowden

Editorial Office

Scott Holmes
Ana Rodríguez

Simulation Lab

Deborah Taylor
Eboni Lewis

