SURGERY NEWS

THE MICHAEL E. DEBAKEY DEPARTMENT OF SURGERY

Baylor College of Medicine

2026 ISSUE 2

MICHAEL E. DEBAKEY DEPARTMENT OF SURGERY



ATLAS A.I.

Advancing Xenoliver Transplantation Research

The future of cardiac surgery

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ATLAS A.I.

The ATLAS A.I. program at Baylor College of Medicine is an interdisciplinary research initiative within the Michael E. DeBakey Department of Surgery. Co-directed by Drs. Ravi Ghanta and Abbas Rana, ATLAS A.I. was established to accelerate surgical discovery through the integration of clinical expertise, biostatistics, machine learning, and artificial intelligence.

ATLAS A.I. provides investigators with access to a robust research infrastructure that includes institutional electronic health record data, national clinical and administrative databases, high-performance computing resources, advanced biostatistical support, and software development expertise. By combining these resources, the program enables faculty and trainees to address complex questions in surgical outcomes, healthcare delivery, transplantation, cardiovascular surgery, oncology, trauma, and perioperative care.

> "ATLAS A.I. is advancing how we apply data science, artificial intelligence, and machine learning to solve complex surgical problems and improve patient outcomes."
>
> - Dr. Abbas Rana

Current ATLAS A.I. initiatives span predictive analytics, machine learning–based risk stratification, image and video analysis, natural language processing, clinical decision-support tools, and outcomes research. Investigators leverage large-scale datasets such as HCUP, NIS, NRD, STS, NTDB, and institutional clinical registries to generate evidence that informs patient care, improves quality, and optimizes healthcare systems.



Dr. Ravi Ghanta



Dr. Abbas Rana

Beyond research, ATLAS A.I. serves as an educational hub for the Department of Surgery. Through structured training programs, biweekly office hours, statistical consultation, and educational workshops, the program equips medical students, residents, fellows, and faculty with practical skills in data science, biostatistics, and translational research. These efforts are helping cultivate the next generation of surgeon-scientists capable of applying advanced analytics to real-world clinical challenges.

Recent ATLAS A.I. research highlights the growing impact of artificial intelligence across surgical disciplines. In cardiovascular surgery, investigators have developed machine learning models to predict postoperative outcomes, healthcare costs, acute kidney injury, stroke risk, and perioperative complications, providing clinicians with tools to improve risk stratification and patient management. In transplantation, ATLAS A.I. researchers have created deep learning models for automated liver segmentation and volumetric analysis from CT imaging, enabling accurate three-dimensional liver reconstruction for surgical planning and transplantation.

Additional work has led to the development and validation of machine learning–based models for predicting hepatocellular carcinoma recurrence following liver transplantation and identifying factors associated with donor organ discard, helping optimize donor utilization and clinical decision-making. Together, these studies demonstrate ATLAS A.I.'s growing role in translating advanced analytics into practical tools that enhance patient care and improve surgical outcomes.

Looking ahead, ATLAS A.I. is focused on expanding the use of real-world data, deploying AI-enabled clinical tools at the point of care, and strengthening collaborations across Baylor College of Medicine and national partner institutions. By building scalable analytical infrastructure and fostering multidisciplinary innovation, ATLAS A.I. is positioning Baylor Surgery at the forefront of data-driven healthcare and precision surgical care.

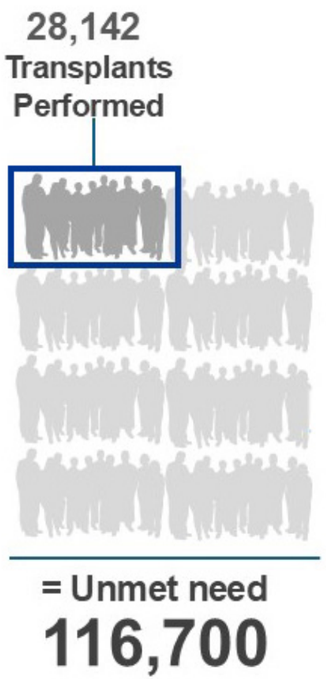
Baylor College of Medicine Signs Multimillion-Dollar Agreement to Advance Xenoliver Transplantation Research

Baylor College of Medicine announced that a new research agreement with United Therapeutics Corporation (Nasdaq: UTHR), a public benefit corporation, will provide up to $5 million a year for five years to establish the Baylor College of Medicine Center for Xenoliver Transplantation and Immunomodulation (XTI), dedicated to advancing scientific understanding of xenoliver transplantation.

XTI's research efforts will place a particular emphasis on patient populations with high unmet needs who may face additional barriers to receiving a timely liver transplant, including patients with end-stage organ failure and patients whose immune systems have formed antibodies to foreign tissue. XTI will also explore immunomodulatory interventions, including mechanisms that may drive dendritic cells, which play an important role in adaptive immune response, to improve human tolerance to a xenoliver transplantation.

Baylor faculty members Dr. John Goss, chief of the Division of Abdominal Transplantation in the Michael E. DeBakey Department of Surgery, and Dr. William K. Decker, professor of pathology and immunology and a member of the NCI-designated Dan L Duncan Comprehensive Cancer Center, will serve as co-directors of the center.

Baylor College of Medicine's transplant program specializes in heart, lung, liver and kidney transplants and is at the forefront of transplant research, giving patients access to the latest techniques and treatment for a successful organ transplant.



Source: OPTN/SRTR 2023 Annual Data Report

United Therapeutics' pioneering organ manufacturing program includes investigational products in development across multiple platforms to address the ongoing shortage of transplantable organs. Their xenotransplantation clinical program includes three investigational xeno organs, UKidney™, UThymokidney™, and UHeart™, procured from pigs with genetic edits intended to facilitate immunological acceptance and compatibility of the organ in the human recipient and to reduce the risk of organ rejection.

The organ shortage crisis is significant. Thousands of people die every year while waiting for a transplant. Liver candidates represent the second-largest group of individuals waiting for an organ transplant, with approximately 10,000 people currently on the national liver transplant waiting list in the U.S.

"We are thrilled to work with Baylor College of Medicine and their renowned transplant team. United Therapeutics' ultimate goal is to provide organs for the people who need them instead of people waiting for organs. The creation of the Center for Xenoliver Transplantation and Immunomodulation is intended to support the advancement of our xenotransplantation program and provide new insights into xenoliver transplantation," said Dr. Martine Rothblatt, chairperson and CEO of United Therapeutics.

"Xenotransplantation is an exciting field of scientific and clinical research that shows great promise for increasing the availability of transplantable organs. Advancements in editing the porcine genome bolster the potential of xenotransplantation by improving the probability of human immune acceptance of a porcine organ," said Dr. Jakub Tolar, president, CEO and executive dean of Baylor. "This is a fitting area for Baylor to show leadership and United Therapeutics is known for excellent, innovative work."

"Despite advances, the full potential of organ transplantation has not been realized and patients continue to lose their lives while waiting for a transplant due to the shortage of suitable organs," said Goss. "The collaboration between Baylor and United Therapeutics will increase our understanding of the xenogeneic immune response, how we may be able to improve this response and potentially allow our patients in need of a transplant to receive an organ without a lengthy wait time."

"Having participated in organ transplantation for the last 30 years, I have had the opportunity to see and experience many advances in transplant medicine. While these advances have been remarkable, the field of transplant medicine still faces an inadequate source of organs, an increase in the number of people with organ failure and logistical challenges contributing to the organ shortage crisis," said Goss. "This collaboration will allow our scientists to attempt to dissect the human allogeneic and xenogeneic immune responses and may ultimately allow the use of xenogeneic organs so that patients with end-stage organ failure will be offered transplantation and avoid the wait list or death."

> **"The full potential of organ transplantation has not been realized and patients continue to lose their lives while waiting for a transplant due to the shortage of suitable organs"**
> - Dr. John Goss

Decker said the collaboration brings together the significant experience and knowledge from multiple fields of research.

"This exciting new relationship with United Therapeutics is an extraordinary opportunity to bring together Baylor's profound expertise in surgery and immunology to attack the problem directly," he said. "The goal here is not to make incremental improvements in xenogeneic tolerance but to genuinely expand access to lifesaving organ replacement. United Therapeutics has shown remarkable vision and commitment in pursuing that goal."

Dr. Todd Rosengart, M.D., interim executive vice president of clinical affairs and chair of the DeBakey Department of Surgery, said the collaboration with United Therapeutics, is "truly exciting." "Baylor College of Medicine has been a leader in organ transplantation dating back to the first heart transplantation performed here in 1968, and United Therapeutics is making huge strides in solving the seemingly unsolvable but potentially life-saving riddle of xenotransplantation," Rosengart said. "If we together can unlock this puzzle, there will be new organs available for literally thousands of patients in critical need."



Dr. Kenneth Liao

1,000 robotic heart surgeries—advancing the future of cardiac surgery

Baylor College of Medicine is celebrating a defining milestone in the future of cardiac surgery. Dr. Kenneth K. Liao, professor and chief of the Division of Cardiothoracic Transplantation and Circulatory Support at Baylor College of Medicine, has completed his 1,000th robotic heart procedure.

The achievement marks a major moment for Baylor's robotic cardiac surgery program and reflects years of surgical innovation, multidisciplinary teamwork and a continued commitment to offering patients state-of-the-art less invasive options for treating complex heart disease.

For Liao, the milestone represents far more than a number. "Every robotic heart procedure represents a patient who trusted us with their care and a team that came together to deliver the best possible outcome," Liao said. "Reaching 1,000 procedures is meaningful because it shows how far robotic cardiac surgery has come and how much more is possible when experience, technology and teamwork come together."

Robotic heart surgery allows surgeons to perform cardiac surgeries through small incisions, often avoiding the need for a traditional sternotomy, where the breastbone is divided to access the heart. For most patients, this minimally invasive approach may reduce surgical trauma, pain, blood loss and recovery time.

At Baylor Medicine, Liao and his team use advanced robotic technology to treat a wide range of cardiac conditions, including mitral valve disease, tricuspid valve disease, coronary artery disease, atrial fibrillation procedures, select aortic valve procedures, congenital heart defects, benign cardiac tumors, complex reoperations and heart transplantation in select adult patients.

The 1,000th robotic heart procedure builds on a series of major milestones for Liao and Baylor. In 2025, Liao and his team performed the first reported fully robotic heart transplant in the United States, a breakthrough that avoided opening the chest and represented a major step forward in transplant surgery. The patient, who had advanced heart failure, was able to receive a donor heart through a minimally invasive robotic approach.

"This milestone is a testament to Dr. Liao's vision, expertise and dedication to advancing the field of cardiac surgery," said Dr. Todd Rosengart, professor and chair of the Michael E. DeBakey Department of Surgery, "Baylor Medicine is proud to be home to a program that is helping redefine what is possible for patients with complex heart disease."

While robotic surgery is often associated with technology, Liao emphasizes that the robot does not perform the surgery. The surgeon remains fully in control, using the robotic platform as an advanced tool that provides small incisions, high-definition 3D visualization, enhanced precision and improved dexterity inside the body.

Behind each successful case is a highly specialized team, including surgeons, anesthesiologists, nurses, perfusionists, advanced practice providers, operating room staff, cardiologists and hospital leaders who help support patients before, during and after surgery.

"Reaching 1,000 robotic heart procedures is something the entire team can be proud of," said Maria Pinero, nurse practitioner in the Division of Cardiothoracic Transplantation and Circulatory Support "These cases require preparation, trust and coordination from every person in the room. It is exciting to be part of a program that continues to grow while keeping patients at the center."

For patients, the impact of robotic heart surgery can be life-changing. Smaller incisions and less disruption to the chest wall may help patients return to daily activities sooner, especially those who may be higher risk or facing complex cardiac conditions.

"I was nervous when I heard I needed to have heart valve surgery again for the fourth time, after previously having three other heart surgeries within a few months, but after coming to Baylor, Dr. Liao and the team explained robotic surgery as a solution and helped me feel confident in the plan," said Ruirui Johnson. "Being able to recover with less pain and get back to my life meant everything to me."

As the program looks beyond 1,000 procedures, Baylor Medicine remains focused on expanding access to advanced robotic cardiac care, training the next generation of surgeons and continuing to push the field forward.

"The future of heart surgery is moving toward approaches that are safer, less invasive and more personalized for each patient," Liao said. "Our goal is to continue building that future here at Baylor, one patient at a time." The milestone reinforces Baylor's role as a leader in robotic cardiac surgery and highlights what is possible when academic medicine, surgical expertise and innovative technology come together to improve patient care.



David and Ingrid Frey

Surviving a Family History of PKD

A rare genetic disorder claimed three family members, and always loomed in the background for David Frey, a marriage coach from Friendswood, Texas.

His mother and two brothers each died at age 49 from polycystic kidney disease (PKD), a rare disorder that causes fluid-filled cysts to form in the kidneys. His older brother, however, underwent a kidney transplant and is alive today.

Kidney Problems Start

As David approached his 49th birthday in 2013, he, too, began suffering dreaded kidney problems. “We were on vacation, and late one night, my wife Ingrid noticed that my feet and legs were really swollen,” David recalled. “I knew what it was. It was my body holding in fluid, rather than it being processed by my kidneys.”

After researching nephrologists in the Houston area, David made an appointment to see Christine Ann O'Mahony, M.D., abdominal transplant surgeon at Baylor St. Luke’s Medical Center and associate professor of surgery at Baylor College of Medicine. Dr. O'Mahony successfully implanted a new kidney and discharged David, though she noted he may later develop polycystic liver disease (PLD), requiring a transplant.

Liver Issue Develops

Six years later, during the COVID pandemic, David’s liver “activated” and began showing signs of PLD. By the summer of 2025, his liver grew from just over 3 pounds to 45 pounds, causing extreme discomfort.

Dr. Kenneth Liao

“Although I was muscular, my ribs stuck out. I just thought I had big ribs. It turns out my liver was starting to grow and pushing against my other organs,” he said. David’s right lower lung collapsed under the pressure. He had trouble breathing, moving and eating. “It pushes against your ribs almost to the point of breaking them, and that causes a lot of pain.”

David, then 61, returned to Baylor St. Luke’s, where Rise Stribling, M.D., medical director of Liver Transplantation, and John Goss, M.D., medical director of Transplantation, immediately recognized the urgency of David’s condition and began the transplant protocol and the search for a donor.

“Dr. Goss was so upbeat and confident,” David said. He told me it would not be a problem. My wife and I were just so grateful after that first interaction.”

Six weeks later, an organ became available, and Ingrid and David made the hour-long drive to Baylor St. Luke’s. The transplant team was ready and successfully implanted the organ in a seven-and-a-half-hour surgery. He was in the ICU for a week while the transplant team managed complications such as low blood count, dehydration, gastric pains and fever.

“They knew exactly what to do for each one of the issues,” David recalled. He spent 40 days in protective isolation, and his immune system strengthened. He will never have to worry about his polycystic disease again.

“By taking out his liver and transplanting a new one, his phenotype and genetic makeup changed,” Dr. Goss said. “He’s now completely cured of this disease. It will not recur in the liver, and it will not recur in the transplanted kidney that he already has. So his chance of living a long life is very good.”

“Dr. Goss was so upbeat and confident,” David said. He told me it would not be a problem. My wife and I were just so grateful after that first interaction.”
- David Frey

Less than two months later, David is getting back to a more normal lifestyle, walking a mile and a half every day. “I never thought I would ever be able to do that again,” David said. He’s looking forward to lifting weights and playing pickleball with Ingrid.

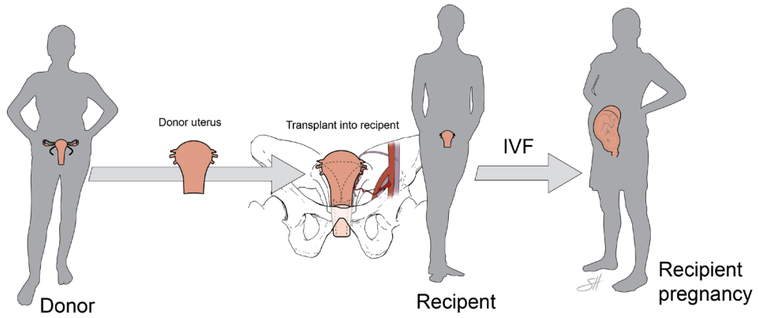
Donors Save Lives

David says he feels an overwhelming sense of gratitude to those who register as organ donors and their families who agree to the donation. “They're the real heroes in this story,” David said. “I'm also grateful for the surgeons and the nurses. They're the heartbeat of the hospital. No one will ever know some of the sacrifices they go through.”

Dr. Goss acknowledged the tremendous team it takes to coordinate a successful organ transplant. “It's a huge team effort. The hospital has to have an infrastructure in place to perform a transplant, and it involves medical staff from multiple areas - anesthesia, pathology, nursing, laboratory medicine, to name a few." It’s really a team effort,” he said.

Managing PKD and PLD

Patients with a family history of PKD or PLD should undergo screenings. “Make sure your siblings and children are screened,” Dr. Goss advised.“And if they do have the disease, it needs to be monitored early on.”

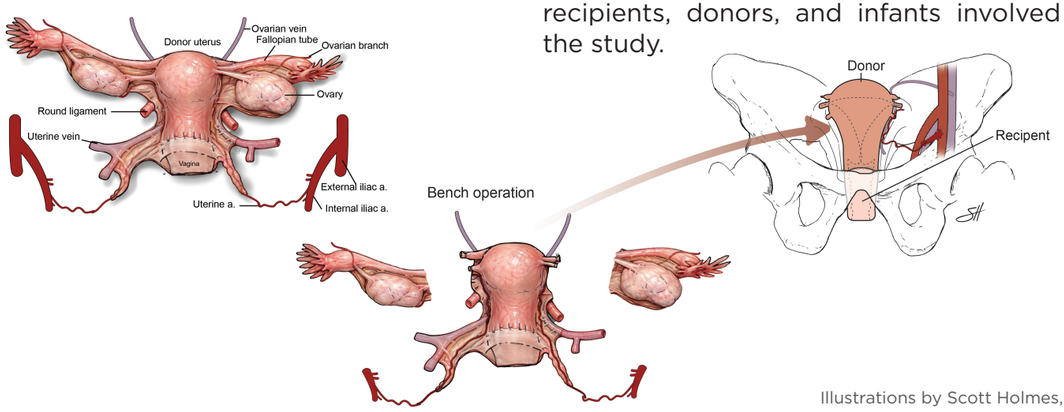


Baylor Advances Uterine Transplant for Women with Absolute Uterine Factor Infertility

Baylor College of Medicine is advancing a novel clinical trial offering new possibilities for women with Absolute Uterine Factor Infertility (AUFI), a condition that has historically prevented patients from carrying a pregnancy. The study reflects the institution's leadership in transplant innovation and multidisciplinary care.

Led by Dr. John Goss, the trial (NCT05263076) evaluates uterine transplantation as a pathway to pregnancy and live birth. The study enrolls a small cohort of patients to undergo transplantation from either living or deceased donors, followed by in vitro fertilization and closely monitored pregnancy care.

The Uterus Transplant Research Program at Texas Children's Hospital is supported by a highly coordinated, multidisciplinary team spanning clinical, surgical, and research specialties. The program brings together transplant surgeons, anesthesiologists, radiologists, intensivists, and nurse coordinators alongside experts in maternal-fetal medicine, reproductive endocrinology, gynecology, neonatology, psychiatry, and fertility care to manage patients across all phases of transplantation and pregnancy. Co-investigators Drs. Michael A. Belfort, Laura Detti, Jessian L. Munoz and Xiaoming Guan, as well as medical director Dr. N. Thao N. Galvan, research operations directors, transplant coordinators and advanced practice providers further support patient care, ensuring comprehensive oversight for recipients, donors, and infants involved in the study.



Illustrations by Scott Holmes, CMI

> "Uterine transplant is redefining what's possible in medicine—moving beyond saving lives to helping build them"
> - Dr. John Goss

AUFI is caused by the absence or dysfunction of the uterus, leaving patients with limited options such as adoption or surrogacy. Uterine transplantation represents a shift in transplant medicine—focused not on saving life, but on restoring reproductive function and expanding patient choice.

Goss, an internationally recognized transplant surgeon, and Dr. N. Thao N. Galvan, an expert in complex abdominal transplantation, are part of a multidisciplinary team working to refine the surgical approach and improve outcomes. Their work builds on global progress in uterine transplantation, which has resulted in multiple successful births over the past decade.

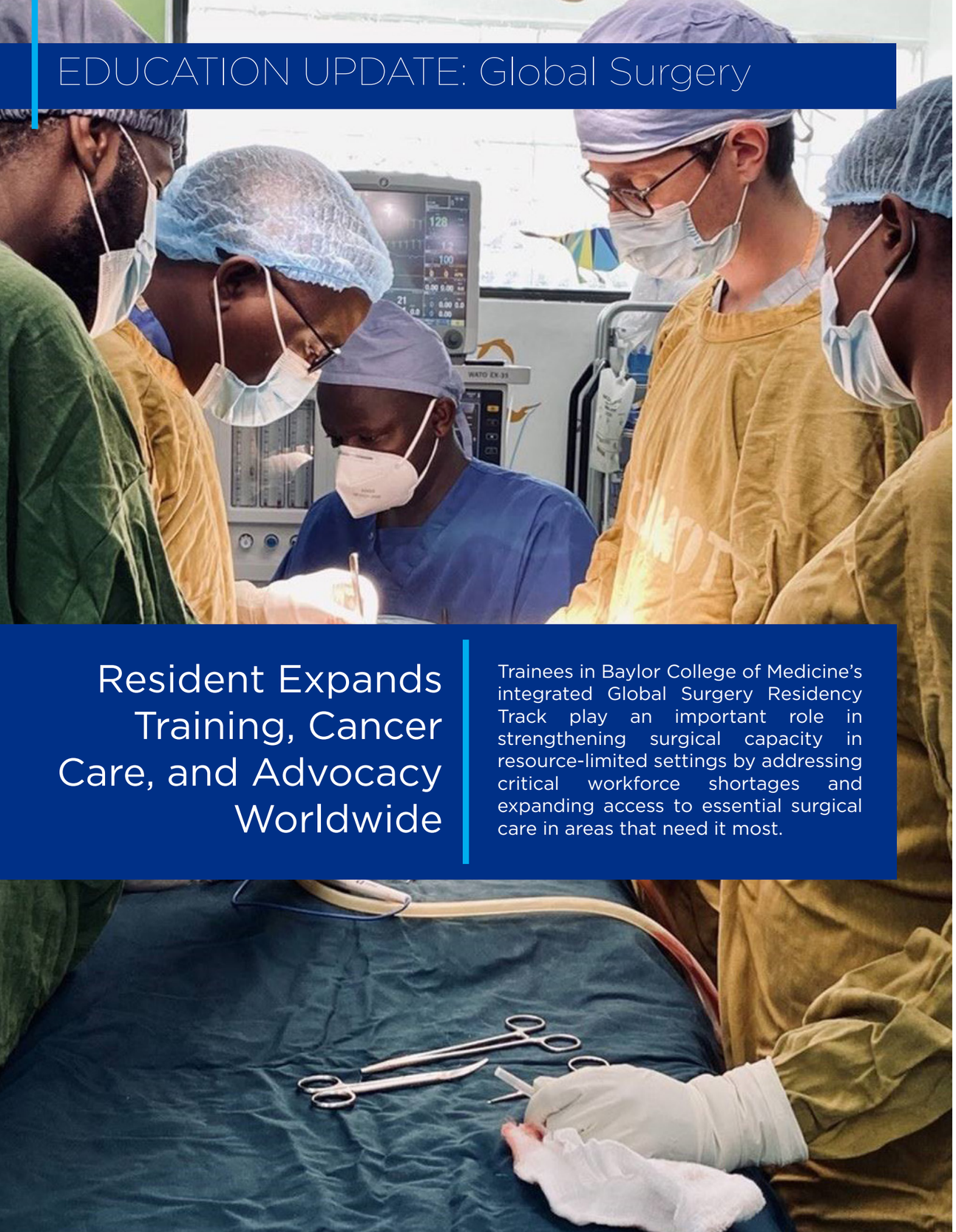
As the study progresses, the team aims to establish safer, more effective protocols that could expand access to uterine transplantation in the future—reinforcing Baylor's role at the forefront of innovation in transplant and reproductive care.



Become a uterus donor or recipient

Call:
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Email:
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EDUCATION UPDATE: Global Surgery



Resident Expands Training, Cancer Care, and Advocacy Worldwide

Trainees in Baylor College of Medicine's integrated Global Surgery Residency Track play an important role in strengthening surgical capacity in resource-limited settings by addressing critical workforce shortages and expanding access to essential surgical care in areas that need it most.

Over the past year, Dr. David Holmes completed his seventh and final year of the Global Surgery Track. Having finished his surgical training, achieved board certification in general surgery, and matched into a surgical oncology fellowship, his final year focused on improving access to surgical care through clinical service, education, research, and advocacy.

Partnering with the Pan-African Academy of Christian Surgeons (PAACS), Dr. Holmes worked alongside local surgeons and residents in Kenya and Malawi. At Kapsowar Hospital in Kenya and Malamulo Hospital in Malawi, he helped care for patients as a consultant surgeon while teaching surgical trainees through operative mentorship, laparoscopic simulation, lectures, and mock oral board examinations. By investing in the education of future surgeons, these programs strengthen the local surgical workforce and expand access to high-quality surgical care across sub-Saharan Africa.

Reflecting on his time abroad, Dr. Holmes said, "One of the most rewarding aspects of global surgery is seeing how investing in people creates a lasting impact. Working alongside surgeons and trainees in Kenya and Malawi taught me that global surgery is fundamentally about partnership. Those relationships and shared experiences will continue to shape how I care for patients throughout my career."

Alongside his clinical efforts, Dr. Holmes advanced international research collaborations focused on surgical oncology. Working with partners at Obafemi Awolowo University Teaching Hospitals Complex (OAUTHC) in Nigeria and Memorial Sloan Kettering Cancer Center (MSKCC), he studied the development of one of sub-Saharan Africa's first formal liver and pancreas surgery programs. The research demonstrated that complex cancer surgery can be safely performed in resource-limited settings through sustained training, multidisciplinary collaboration, and long-term international partnerships. Locally, his research addressed disparities in cancer care in Harris County, Texas, highlighting the role of staging laparoscopy in improving treatment planning for underserved patients with pancreatic cancer.

> **"One of the most rewarding aspects of global surgery is seeing how investing in people creates a lasting impact."**
> - Dr. David Holmes

In addition to his clinical and academic work, Dr. Holmes engaged in national and global surgical advocacy. He met with members of Congress through the American College of Surgeons to support national cancer screening initiatives. He also represented Baylor's Global Surgery Track at the 2026 World Health Assembly in Geneva, contributing to discussions on strengthening international surgical systems.

Dr. Holmes will next begin a Complex General Surgical Oncology fellowship at Roswell Park Cancer Center in Buffalo, New York. Building on the foundation of Baylor's Global Surgery Residency Track, he will continue to pursue his long-term goal of improving access to high-quality cancer care through clinical excellence, collaborative research, surgical education, and international partnerships.

Graduation 2026



General Surgery Residency
Dr. Waleed Ageedi
Dr. Jacob Schriner
Dr. Brandon Smith
Dr. Naveen Manisundaram
Dr. Jade Vorster
Dr. Oluyinka Olutoye II
Dr. Centura Anbarasu
Dr. Wynne Zhang
Dr. Vivi Chen
Dr. Yao Yang



Vascular Surgery Independent Fellowship
Dr. Stephen Manek

Vascular Surgery Integrated Residency
Dr. Ian Cook-Armstrong



Thoracic Surgery
Dr. Jonathan Aboagye *Independent Fellow*
Dr. Lindsay Volk *Independent Fellow*
Dr. Navyatha Mohan *Integrated Resident*
Dr. Christopher Strader *Independent Fellow*



Plastic Surgery Integrated Residency
Dr. Anna Skochdopole
Dr. Austin Jiang
Dr. Amjed Abu-Ghname

Aortic Surgery Fellowship
Dr. Stacey Chen

Cardiac Transplant Surgery Fellowship
Dr. Vuong-Lam Pham

Surgical Critical Care Fellowship
Dr. Jared Mortus
Dr. Kevin Todd
Dr. Katherine Wu

Acute Care Surgery Fellowship
Dr. Megan Shumway

Pediatric Surgery Fellowship
Dr. Sourav Bose

Comprehensive Endocrine Surgery Fellowship
Dr. William Lightle

Awards

Outstanding Chief Award
Dr. Oluyinka Olutoye II

Outstanding Teaching Resident Award
Dr. Jacob Schriner

Chief Award to an Outstanding Faculty Member
Dr. Chad Wilson

Vascular Trainee for the Trainee Clinical Excellence Award
Dr. Stephen Manek

Vascular Trainee Research Award
Dr. Hannah Oden-Brunson

Vascular Trainee Teacher of the Year Award
Dr. Ian Cook-Armstrong

Vascular Faculty Teacher of the Year Award
Dr. Nader Zamani

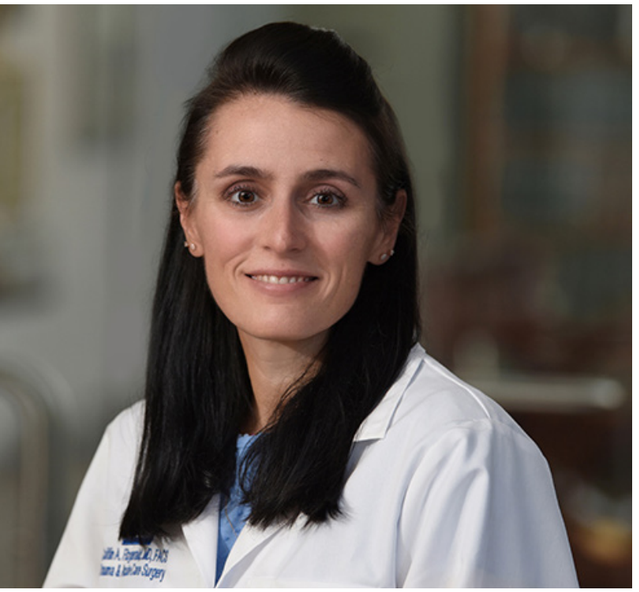
Baron Hardy Academic Achievement Award
Dr. Richard Appel

Outstanding Clinical Faculty Award
Dr. Laura Monson

Outstanding Faculty Teaching Award
Dr. Lyahn Hwang

Thoracic Faculty Teacher of the Year Award
Dr. Shanda Blackmon

In the OR Light



Dr. Caitlin Anne Fitzgerald

Assistant Professor of Surgery
Division of Trauma, Bariatric
& Acute Care Surgery

Where did you grow up, and what path brought you to Baylor College of Medicine?
I was born in Chicago and moved a few times when I was young but spent most of my childhood growing up in Warren, N.J.. I trained at Emory in Atlanta for residency and then did my trauma and acute care surgery fellowship at Parkland in Dallas, Texas. At that time, Ryan Dumas was one of the faculty members there and became a good friend and mentor. Shortly after he started at Baylor, he began recruiting me to come on as one of the faculty here which I did nine months ago!

What drew you to surgery, and how did you decide on your specialty?
I knew I wanted to be a doctor at three years-old but it wasn't until I had knee surgery after getting injured playing softball that I figured out that I wanted to be a surgeon. I really like how in surgery you are physically doing something to a patient to make a noticeable change or difference rather than prescribing a medication and waiting to see what happens. As an intern, I initially thought I wanted to do pediatric surgery but then did trauma the first month of my second year and fell in love with the chaos of a busy trauma bay and the split-second decisions that you often have to make. I also love how with trauma you often don't know what you're going to get in terms of injuries so every surgery is a puzzle that you have to figure out quickly.

What is the most rewarding part of your work in the operating room?
Two things. In trauma especially, I am meeting most people on the worst or one of the worst days of their lives. Being able to take that patient from the trauma bay to the operating room, figure out what their injuries are, fix them, and get them off of the table successfully is very rewarding. The second thing is when I'm working with residents and I see the moment that they transition from the assistant to the surgeon doing the operation and holding the right angle. It's a full circle moment that is really cool to be a part of.

What's a moment in your career that reminded you why you chose this field?
A little bit over a year ago, I took care of a patient who was in an awful motor vehicle accident. He had significant intra-abdominal injuries, multiple extremity fractures, and a pretty severe pelvic fracture. I was on call when he came in and did his initial trauma laparotomy and then took care of him the first week that he was in the ICU when he was pretty sick. He did eventually make it out of the hospital and I got the chance to see him in clinic a few weeks after he was discharged and he gave me a big hug and brought his whole family in to meet me and say thank you. It was one of those moments that reminds you that you do make a positive different in peoples' lives and have an impact.

What advice would you give students or trainees considering a career in surgery?
I think the best advice I could give is that surgery is a marathon and not a sprint. The training is long and demanding and you have to be willing to make sacrifices in order to become the best surgeon that you can. With that being said, surgery is the most rewarding specialty and it is worth every ounce of effort that you put into it.

What might colleagues be surprised to learn about you outside of work?
I really enjoy cooking and have jumped on the sourdough starter bandwagon and now routinely make bread or other baked goods with my starter. I have also recently taken up gardening and now grow my own tomatoes and peppers.

What's the best advice a mentor ever gave you?
The best advice I've received is to listen to your gut, especially when it comes to taking care of patients. If your gut is telling you something isn't right, it probably isn't and it's up to you to figure out what it is and fix it.

Dr. Andy Espinoza

General Surgery Resident
(Research Track)

Where did you grow up?
I was born in Lima, Peru but grew up most of my life in Michigan.

Why did you choose medicine?
My parents both are in medicine and their altruism and passion to care for others influenced me to follow a similar career.

Why surgery, and how will you choose a specialty?
I chose general surgery because it allowed me to retain and expand my medical knowledge, gave me the platform to become an effective leader, and taught me how to surgically treat a range of pathologies from cancer to gunshot wounds.

What advice would you give to someone considering medicine?
Make sure you pick a speciality that you truly enjoy. Don't focus on whether it is considered "hard" or "easy". If you pick a speciality that you are excited to work in, it will make every day enjoyable.

What do you do outside of work?
I enjoy watching movies and going to comedy shows.







Dr. Jade Vorster
General Surgery Class of 2026

Where are you from? West Palm Beach, Fla.

Why did you choose medicine?
My mother is a nurse practitioner. I grew up admiring her dedication to helping people and solving problems. She inspired me to go into medicine.

Why surgery, and how did you choose a specialty?
I was immediately drawn to the depth and breadth of knowledge and skills of the general surgeons I worked with as a medical student. The commitment to patient care, work ethic, and comradery of this specialty is what sealed the deal. I chose to be a military surgeon because I value loyalty and service to those who serve our country.

What advice would you give to someone considering medicine?
The desire to help others is a core value in the field of medicine. Don't let anyone tell you otherwise.

What do you do outside of work?
My hobbies currently include running along the bayou, being an amateur cheese monger, and learning how to play Mahjong.



Ellie Faucheux
Business Operations Coordinator
Division of Abdominal Transplantation

Where did you grow up, and what path brought you to Baylor College of Medicine?
I grew up in New Iberia, La. and attended the University of Louisiana at Lafayette. After college, I worked as an events manager, where I enjoyed coordinating projects and supporting teams. When an opportunity at Baylor opened up, I saw it as a chance to apply those skills in a way that felt meaningful.

What is the most rewarding part of your work?
The most rewarding part of my work is being a small part of a larger mission dedicated to improving the lives of others.

What might colleagues be surprised to learn about you outside of work?
Outside of work, I enjoy cooking, traveling, and spending time with family and friends. My favorite dishes to make are Cajun comfort foods, and I always enjoy visiting home in Louisiana. My husband and I love exploring new places together, and I am currently trying to learn a bit of German for an upcoming trip later this year.

What's the best advice a mentor ever gave you?
Don't bring a problem without first thinking through a possible solution.

Honors and Awards

Drs. Emma Burke, Bennett Hartley, Oluyinka Olutoye II (general surgery residents) and **Dr. Lindsay Volk** (thoracic surgery independent fellow) received Trainee Excellence Awards through the Academy of Resident and Fellow Educators at Baylor College of Medicine

Dr. Brian Hickner: Podium Winner during the Presidential Session at the South Texas Chapter of the American College of Surgeons Annual Meeting

Dr. Samer Mattar: elected to Baylor College of Medicine's Faculty Senate

Dr. Tamer Mohamed: mid-career leadership award by the International Society of Heart Research (North American section)

Dr. Timo Nazari-Shafti: recipient of a generous gift from the Levy-Longenbaugh Foundation. The grant will fund his project, "Small molecule Therapy to prevent Bypass Graft failure Using iPSC 3D models"

Dr. Jeffrey A. Ross: appointed to the Communications & Public Information Committee and the Medical Education Committee by the American College of Sports Medicine

Inducted as a Fellow of the Royal College of Physicians and Surgeons of Glasgow

Charrika Williams: 2026 Clinical Excellence in Vascular Nursing Award by the Society for Vascular Nursing

Dr. Ivan Murrieta-Alvarez: 2026 Presidential Abstract Recognition Award at the AATS 106th Annual Meeting for his abstract titled, "Long-term Echocardiographic and Clinical Outcomes After Aortic Root Replacement in Patients with the Marfan Syndrome"

Jacob Mardick: awarded CPRIT funding from Baylor College of Medicine Comprehensive Cancer Training Program for "A Foundation Model for Personalized Mass-Spectrometry Based Pan-Cancer Detection"

Dr. Elizabeth Bonefas: received a Professional Educator Appreciation and Recognition (PEAR) Award from Baylor College of Medicine students

Holly Clayton, M.P.A.S., PA-C: named President-Elect of the American Association of Surgical Physician Assistants (AASPA)

2026 Research Day Awards

Dr. Zemia C. Ferreria: Best Poster Presentation by a Resident or Fellow (mentor: Dr. Gustavo Oderich)

Dominique I. Cope: Best Poster Presentation by a Student (mentor: Dr. Caitlin Fitzgerald)

Rebecca Liu: Best Poster Presentation by Clinical, Education, or Research Staff (mentor: Dr. Riham Abouleisa)

Faith E. Jackobs: Best Project in Progress Poster Presentation (mentor: Dr. Livia S. Eberlin)

Dr. Hannah V. Oden-Brunson: Clinical Research of Distinction by a Resident or Fellow (mentor: Dr. Gustavo Oderich)

Ashley E. Montgomery: Research of Distinction by a Student: (mentor: Dr. Livia S. Eberlin)

Dr. Ilse Torres Ruiz: Research of Distinction by Clinical, Education, or Research Staff (mentor: Dr. Jayer Chung)

Dr. Abou Bakr M. Salama: Basic Science Research of Distinction by a Resident or Fellow (mentor: Dr. Tamer Mohamed)

2026 Faculty Awards

Drs. Subhasis Chatterjee, N. Thao N. Galvan, Atif Iqbal, Konstantinos Makris and **Shawn Stafford:** Star Faculty Award for Excellence in Patient Care

Drs. Lauren Barron, Derek Erstad, Ramiro Fernandez II, Luc Joyeux and **Jenny Lee Nguyen:** Early Career Faculty Award for Excellence in Patient Care

Drs. Natasha Hansraj, Cary Hsu and **Kristy L. Rialon:** Norton Rose Fulbright Faculty Excellence Award for Educational Leadership

Drs. Atif Iqbal, Hyun-Sung Lee, Yesenia Rojas-Khalil and **Crystal Shin:** Norton Rose Fulbright Faculty Excellence Award for Teaching and Evaluation

Drs. Lauren Barron, Neal R. Barshes, Subhasis Chatterjee, Derek Erstad and **Alice King:** Norton Rose Fulbright Faculty Excellence Award for Educational Materials

NEW GRANTS

Dr. Gustavo Oderich - $14,370,000 The Marcus Foundation Research Award "Marcus VITAL (Vascular Intelligence for Translational AI and Learning) Laboratory"
The multidisciplinary initiative leverages artificial intelligence, fed by the world's largest cardiovascular databases, to accelerate discovery and advance future cardiovascular care

Dr. Hee-Jin Jang - $4,000,000 National Institutes of Health R01 Grant
"Targeting PD-1 Expressing Tumor-Associated Macrophages to Overcome Immunoresistant Lung Adenocarcinoma"
This project seeks to identify mechanisms of immunotherapy resistance and develop strategies to improve treatment response and survival in patients with lung adenocarcinoma.

Dr. Hyun-Sung Lee - $3,319,990 National Institutes of Health R01 Grant "Liquid Multiomics for Personalized Systemic Treatment in Malignant Pleural Mesothelioma"
This project will develop liquid biopsy-based multiomic approaches to identify predictive biomarkers, monitor treatment response, and guide personalized immunotherapy strategies for patients with malignant pleural mesothelioma

Dr. Tamer Mohamed - $1,100,000 National Institutes of Health R33 Grant
"Triple Gene Therapy for Ischemic Heart Failure"
This project evaluates a novel triple gene therapy approach designed to promote cardiac regeneration and improve outcomes for patients with ischemic heart failure.

Dr. Nitesh Katta - $746,901 National Institutes of Health R00 Grant "Metasurface Optical Guidewire for Percutaneous Coronary Intervention"
This project will develop novel metasurface optical guidewire technology for percutaneous coronary intervention to support image-guided treatment of calcified coronary artery disease

Dr. Sanjib Sarkar - $77,852 Private Grant "Lipid Nanoparticle-Based siRNA Delivery Targeting STING Pathway to Mitigate Aortic Aneurysm and Dissection" This project seeks to achieve localized STING silencing in the aorta, mitigating aortic aneurysm and dissection progression without systemic side effects

Dr. Nandan Mondal - $55,000 American Heart Association Heart Transplant Research Network
"Transforming Heart Transplant Care: Collaborative Research to Improve Graft Dysfunction, Therapies, and Patient Outcomes"
This project aims to improve heart transplant outcomes through enhanced data integration, treatment strategies, and patient care

*Grants under $50,000 not listed

Surgery News is a publication of the
Michael E. DeBakey Department of Surgery
at Baylor College of Medicine

To be added to the newsletter
email database contact
surgerynews@bcm.edu

Editor-in-Chief:
Todd K. Rosengart, M.D.

Editing, design and layout:
Scott Holmes, CMI

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