



# Section of Surgical Sciences

Cover photo: Dr. Meredith Duke and Dr. Lexie Vaughn perform robotic hernia surgery

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VANDERBILT  UNIVERSITY  
MEDICAL CENTER

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# Section of Surgical Sciences

## — Departments and Divisions —

- Department of Cardiac Surgery
  - Division of Pediatric Cardiac Surgery
- Department of Neurological Surgery
  - Division of Pediatric Neurological Surgery
- Department of Oral and Maxillofacial Surgery
  - Division of Dentistry
- Department of Surgery
  - Division of General Surgery
  - Division of Hepatobiliary Surgery & Liver Transplantation
  - Division of Kidney & Pancreas Transplantation
  - Division of Surgical Oncology & Endocrine Surgery
  - Division of Acute Care Surgery
    - Burn Center
    - Emergency General Surgery
  - Division of VA General Surgery
  - Williamson County
- Department of Pediatric Surgery
- Department of Plastic Surgery
  - Division of Hand and Upper Extremity Surgery
  - Division of Pediatric Plastic Surgery
- Department of Thoracic Surgery
- Division of Surgical Research
- Department of Vascular Surgery

## MESSAGE FROM THE CHAIR

### Welcome to many new faces and honoring a colleague and friend



**Seth Karp, MD**  
Chair, Section of  
Surgical Sciences

There is a lot going on in the Section and across the Medical Center. Here are some updates:

This past year the Section of Surgical Sciences has seen many changes. Our surgical volume continues to grow along with our research initiatives. We have many promotions and positive leadership changes. Some faculty have been given additional responsibilities. Also, we welcome **Allan Pickens, MD**, who has been named professor and chair of the Department of Thoracic Surgery. Pickens, a nationally renowned thoracic surgeon, joins us from Emory University School of Medicine in Atlanta.

**Matthew Spann, MD, MMHC**, associate professor of Surgery and director of Metabolic and Bariatric Surgery, has been named chief of the Division of General Surgery in the Department of Surgery. Former General Surgery chief, **Timothy Geiger, MD, MMHC**, has been named to a new role as vice chair for Network Surgical Strategy and Development in the Section of Surgical Sciences.

I am pleased to announce that **Alex Hawkins, MD, MPH**, associate professor of Surgery and Director of the Colorectal Research Center, has accepted the Vice Chair for Clinical Research role. An NIH-funded researcher specializing in treatment of diverticulitis, Dr. Hawkins is uniquely positioned to support the Section efforts and continue this work.

**Jay Wellons, III, MD, MSPH**, Cal Turner Professor of Pediatric Neurological Surgery will also be transitioning his role in Surgical Outcomes Center for Kids (SOCKs) as director. Over more than a decade, Wellons built a world-class clinical research program, in combination with Chevis Shannon, Stephen Gannon, and with support from Dan Beauchamp and John Brock.

I am also pleased to announce that **Monica Lopez, MD, MS**, associate professor of Pediatric Surgery and Vice Chair for Surgical Quality and Evidence-based Programs in the Department of Pediatric Surgery, has agreed to take over this role. Dr. Lopez is a nationally known outcomes researcher focusing on technology, value-based care, and quality and systems improvement.

**The Link Building** and **One Hundred Oaks** are on track to improve patient flow and increase surgical productivity and opportunities.

We have completed final planning stages for the new Link Building and construction has begun. The new building will be located adjacent to Oxford House which will be demolished. Included in these plans are 10+ new operating rooms and intra-operative MRI capacity, a large expansion of surgical beds, and offices for Transplant and Thoracic Surgery. Thanks to the members of the Section who participated in the planning process. One Hundred Oaks will be developed with significant additional outpatient OR capacity to decompress on-campus operating rooms.

**R. Daniel Beauchamp, MD**, former chair of the Section of Surgical Sciences and surgeon-in-chief of VUMC, passed away, Nov. 27, 2022. He was 66 years old.

Dr. Beauchamp, the John Clinton Foshee Distinguished Professor of Surgery, also held an appointment as professor in the Department of Cell and Developmental Biology. He served as chair of the Section of Surgical Sciences for 17 years, from July 2001 until he stepped down from the role in July 2018 to focus on his research. He served as deputy director of VICC from 2011 to 2019 and was appointed to the role of vice president for Cancer Center Network Affairs in 2018.

“Dr. Beauchamp was a visionary leader who contributed profoundly and seamlessly in both a local and national capacity across the missions of academic surgery: patient care, science, education, and administration,” said **Seth Karp, MD**.

[Photo Tribute on pages 20 to 27](#)

*We are looking forward to an exciting and productive year!*

Spann, Geiger move into new leadership roles

**Matthew Spann, MD, MMHC**, associate professor of Surgery and director of Metabolic and Bariatric Surgery, has been named chief of the Division of General Surgery in the Department of Surgery in the Section of Surgical Sciences at VUMC.



Spann

Former General Surgery chief, **Timothy Geiger, MD, MMHC**, has been named to a new role as vice chair for Network Surgical Strategy and Development in the Section of Surgical Sciences.

"Matt Spann has proven to be an exceptional leader in the Department of Surgery, as evidenced by the remarkable growth and outstanding reputation of the Surgical Weight Loss Center under his leadership," said **Carmen Solórzano, MD**, John L. Sawyers Professor of Surgical Sciences and chair of the Department of Surgery. During his time as director of Metabolic and Bariatric Surgery, the Surgical Weight Loss Center expanded from one to four locations in the region, and VUMC now performs one in every 10 weight-loss surgeries recorded in the state of Tennessee. This program is held up as an aspirational goal for other surgical service lines to emulate. We look forward to his continued achievements.

Spann joined the Division of General Surgery in the Department of Surgery as an assistant professor in 2014 after completing a minimally invasive and bariatric surgery fellowship at VUMC. He rose to the rank of associate professor of surgery and has served and continues to serve in several leadership positions including co-director of the Weight Loss Center and medical director of the General Surgery operating room POD at Vanderbilt University Hospital.

When Spann became director of the Surgical Weight Loss Center in 2017, the surgical weight loss program had declining patient volumes and a cumbersome evaluation

system. He formed a fast-track pathway for patient care in collaboration with Women's Health, Orthopedic Surgery and Plastic Surgery for direct patient scheduling coordination in preparation for surgery.

"It is truly an honor to have an opportunity to lead this outstanding group," Spann said. "I want to thank Dr. Geiger for his leadership as he has allowed the Division of General Surgery to reach unprecedented heights."

Geiger came to VUMC in 2010, and he was named clinical director of the Colon and Rectal Surgery Program in 2015. One year later, he was tapped to become chief of the Division of General Surgery. In 2017, Geiger was named executive medical director of the Surgery Patient Care Center (PCC), a service area that includes both on- and off-campus clinics and inpatient units that provide surgical services. He will continue serving in that role.

During Geiger's tenure as chief of the Division of General Surgery, the division grew significantly and has contributed innovative surgical initiatives at VUMC, including robotic complex abdominal wall hernia repair.

Under his leadership, the division surpassed 1,000 bariatric procedures, established a colorectal surgery fellowship, created an innovative foregut surgical program, increased research productivity and achieved some of the lowest colorectal surgical infection rates in the nation, among other accomplishments.

"Holding the position of division chief has been an unbelievable honor," said Geiger. "This group is in excellent hands with Dr. Spann, and I know our team will continue to grow and flourish with his leadership. I am excited about my new role, and I look forward to helping define a unified network of surgeons across all VUMC campuses."

[Complete Story](#)



Geiger



Kauffmann named vice chair for Global Surgery

**Rondi Kauffmann, MD, MPH**, associate professor of Surgery in the Division of Surgical Oncology and Endocrine Surgery, can pinpoint when her spark to address disparities in global health caught fire. She was a wide-eyed 12-year-old staring up at a 10-story mountain of garbage in Manila, Philippines.

"There were a lot of children running around, and the person driving us explained how just one in five or two in five children would live to the age of 5. They died of pneumonia, malaria and other communicable diseases, and that just seemed incomprehensible to me. In my naïve, sixth-grade mind, I decided I would do something about that."

Kauffmann did international service work during high school, college and medical school. She came to Nashville and learned from mentors including **John Tarpley, MD**, then program director for the General Surgery residency, who was renowned for efforts he led in global surgery.

Now, Kauffmann has been selected to be the inaugural vice chair for Global Surgery in the Section of Surgical Sciences. In this role, she will support the Section's global surgery efforts; improve communication and build teams for initiatives both within the section and with other groups at VUMC and Vanderbilt University; represent the Section in Medical Center and University-wide global health efforts; and provide funding for travel and education.

"Rondi is a superb clinician and has already demonstrated herself a proven leader at the state level as an advocate for patients and surgical programs," said **Seth Karp, MD**, H. William Scott Jr. Professor of Surgery and chair of the Section of Surgical Sciences.

[Complete Story](#)

Pickens named chair of VUMC Thoracic Surgery

**Allan Pickens, MD**, has been named professor and chair of the Department of Thoracic Surgery.

Pickens, a nationally renowned thoracic surgeon, joins us from Emory University School of Medicine in Atlanta, where he was director of Thoracic Oncology, program director for Cardiothoracic Surgery, medical director of Perioperative Services for Emory University Hospital Midtown, and member of the Winship Cancer Institute.

Pickens' initial research focused on the molecular biology of cancer. He isolated and studied the Fas apoptosis receptor in adenocarcinoma. His research now focuses on thoracic malignancies and minimally invasive thoracic surgery.

His clinical specialties include thoracoscopic and robotic thoracic surgery for minimally invasive removal of early-stage lung cancers and esophageal cancers. He has taught these procedures on local, national and international stages.

"Minimally invasive thoracic operations allow safe removal of thoracic tumors with less pain and faster recovery," Pickens said.

Pickens received his bachelor's and medical degrees from the University of Alabama before completing his surgical residency at University of Alabama Hospitals. He later completed a thoracic surgery residency at University of Michigan Hospitals, a minimally invasive thoracic surgery fellowship at Cedars-Sinai Medical Center in Los Angeles and a general thoracic surgery fellowship at the University of Michigan.

Pickens' distinguished career includes roles as a procurement surgeon for the Alabama Organ Center, thoracic surgery workforce director for the University of Michigan and director of Minimally Invasive Thoracic Surgery for Emory.

He is certified by the American Board of Surgery and the American Board of Thoracic Surgery. His memberships include the Society of Thoracic Surgeons, General Thoracic Surgery Club, American College of Chest Physicians, Thoracic Surgery Directors Association, and the American Association of Thoracic Surgeons.

[Complete Story](#)



Pickens



Barbul

Barbul selected for 2023 Wound Healing Society Distinguished Service Award

**Adrian Barbul, MD**, professor of Surgery, Division of General Surgery, and Division of Veterans Affairs General Surgery, has been selected as the recipient of the 2023 Wound Healing Society (WHS) Distinguished Service Award. This award is given to an individual who has been recognized and nominated by their peers for their outstanding contributions to the growth and development of the WHS. The award will be presented at the national meeting this year at the Gaylord National Resort & Convention Center in National Harbor, MD.



As a medical student, Joseph Fusco was diagnosed with cancer  
That experience influences the way he treats his young patients every day

**Joseph Fusco, MD**, assistant professor of Pediatric Surgery at Children’s Hospital, was a really good ball player — but was persuaded that medicine might be a better career. When he was an undergraduate member of the baseball team at Georgetown University, he faced David Price, who became a Vanderbilt and Los Angeles Dodgers star.

“I feel like every baseball player who went into medicine became an orthopaedic surgeon,” laughs Fusco. “I figured that would be my route, but then I fell in love with pediatric surgery.”

The change of plans, both in careers and specialties, was a lifesaver — literally.

Just as Fusco was planning his second to last clinical rotation in medical school at Mount Sinai School of Medicine, he decided to switch from orthopaedic surgery to general surgery as his clerkship specialty, which led to a location change. It meant he landed at the Bronx VA with Terry Davies, MD, the president of the



Fusco

American Thyroid Association as his lead attending.

One day — it was burned into his memory as he is very specific that it was Tuesday — the regularly scheduled noon learning conference was canceled. The attending, not wanting to waste a learning opportunity on the assembled students, decided to demonstrate how to perform thyroid ultrasounds.

“I remember it so clearly,” recalled Fusco. “I was the last person in the room and so he selected me as the ‘volunteer.’

“He put the probe to my neck and found a pretty large nodule. He started describing these somewhat alarming features. It wasn’t concrete at that time for me. Other residents practiced operating the ultrasound on me after the session.”

At the end of the class and as most students had filtered out of the room, Davies instructed Fusco to make an appointment with him.

[Complete Story](#)

Bick study provides new seizure control input for predicting anterior temporal lobectomy outcomes

In temporal lobe epilepsy (TLE), the most common form of epilepsy, up to 40% of patients fail to achieve seizure control with antiepileptic medications alone, yet many never receive the gold-standard treatment for medication-refractory seizures: anterior temporal lobectomy.

Despite the known benefits of the procedure — with half to two-thirds of patients free of disabling seizures one year after surgery — surgical treatment for epilepsy remains an underutilized option.

multicenter study, published in *World Neurosurgery*, examined pre-seizure auras by type to see if they are predictive of outcomes. The results add a valuable component to an epilepsy team’s decision matrix as they consider surgery.

When the researchers compared patients with and without auras, they found no significant differences in surgical outcomes. However, when they examined type of aura among the majority who had pre-seizure auras, they found mild to strong associations with outcomes. The study authors suggest that aura type is therefore a useful metric to consider in optimizing a patient workup and candidate selection for anterior temporal lobectomy (ATL).

“Studies like this may encourage greater use of the procedure in appropriate patients by refining the populations most likely to benefit,” said Bick.

Residency programs at VUMC are being recognized among their peers for consistently high rankings by outlets such as *U.S. News & World Report (USNWR)* and *Doximity*, which highly ranks select Surgery residency programs.

Surgery among residency programs receiving national accolades

VUMC has several of its 24 core residency programs consistently ranked by *Doximity* in the top 20 by reputation and another four programs consistently in the top five.

[Complete Story](#)



Terhune

Terhune named Senior Vice President for Educational Affairs

**Kyla Terhune, MD, MBA**, Vice President for Educational Affairs and Associate Dean for Graduate Medical Education, has been named Senior Vice President for Educational Affairs. The promotion is effective Jan. 1.

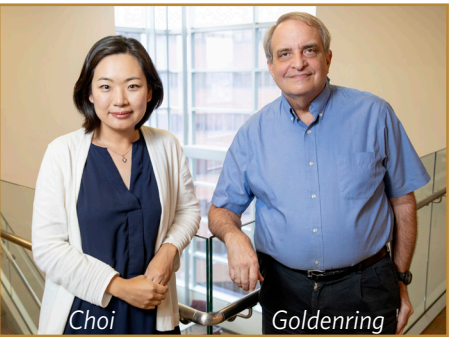
Terhune, who is also professor of Surgery and Anesthesiology, and serves as an associate chief of staff for Vanderbilt University Hospital, has led VUMC’s Office of Graduate Medical Education (GME) for the past three years.

Of immense benefit to Tennesseans, a large number of VUMC’s trainees remain each year in the state to continue training or to provide direct primary or specialized care.

“Kyla is an outstanding leader. People nationally have recognized her immense contributions in designing ways to navigate challenging situations,” said Donald Brady, MD, Executive Vice President for Educational Affairs for VUMC and Executive Dean for Academic Affairs for Vanderbilt University School of Medicine.

Two Vanderbilt-Ingram Cancer Center (VICC) researchers have received \$5 million in funding from a new initiative by the National Cancer Institute that aims to define how gastric and gastroesophageal junction adenocarcinomas form and evolve at the cellular level.

Choi, Goldenring receive \$5M multi-institutional grant to study cell plasticity’s role in gastric cancer origins



Choi

Goldenring

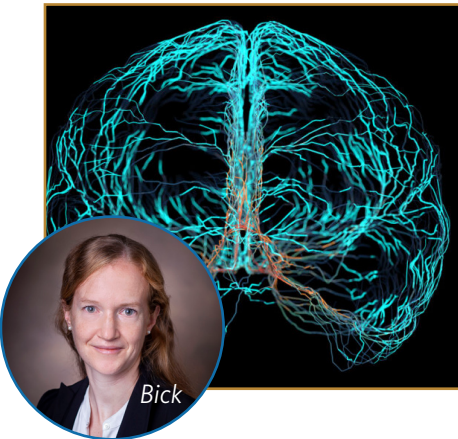
**Eunjung Choi, PhD**, assistant professor of Surgery, and **James Goldenring, MD, PhD**, Paul W. Sanger Professor of Experimental Surgery, are co-principal investigators of one of six teams that were awarded funding through the initiative. Using different approaches, the teams are studying the contributions and fundamental mechanisms of tumor-initiating cells to the development of cancer in the stomach and esophagus. The Vanderbilt team is focused on cell plasticity, which is how cells change.

“It is our great opportunity to challenge ourselves to define a true cell origin of gastric cancer and what mechanisms and pathways can control the pre-cancerous cell evolution and diversification to cancerous cells. Successful outcomes from the proposed study will help to design future preventive strategies for patients with pre-cancerous gastric cell lineages,” Choi said.

The \$5 million in funding supports their work over a five-year period.

“We are excited to participate in this multi-institutional consortium to tackle how pre-cancerous lesions are generated in the stomach and how they are influenced to progress toward cancer,” said Goldenring.

[Complete Story](#)



Bick

**Sarah Bick, MD**, a functional neurosurgeon and an assistant professor in the Department of Neurological Surgery at VUMC, is examining the complex elements that lead to successful treatment. She and her co-authors on a new

[Complete Story](#)

[Journal link](#)



## Top military medical leader gives high marks to VUMC's military-civilian partnerships

### Dennis notes importance as trauma, surgery teams lauded

Lieutenant General R. Scott Dingle, the U.S. Army Surgeon General and Commanding General of the U.S. Army Medical Command, visited VUMC to observe the ongoing military-civilian partnerships which strengthen the Army's medical readiness.

"To the entire Vanderbilt team, just simply one word, 'Wow,'" Dingle said. "My staff has been telling me for a while, 'You have to get to Vanderbilt.' Now I understand why I needed to get to Vanderbilt, because what you're doing for the United States Army is generating, what we call in the military, readiness for our nation's heroes."

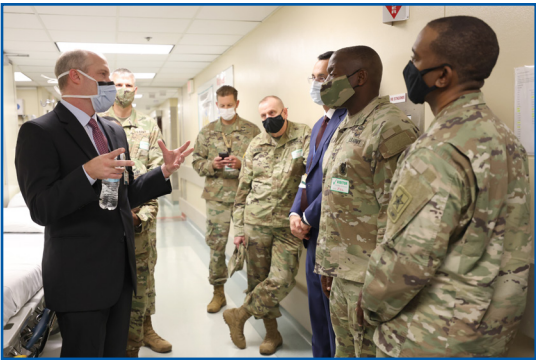
Dingle, the most senior officer of the U.S. Army Medical Command, and other military medical leaders met with Medical Center leaders and toured clinical sites at Vanderbilt University Hospital (VUH), where military medical personnel work alongside their civilian medical counterparts.

Vanderbilt has had a long history of military-civilian partnerships that date back to World War I, according to **Bradley Dennis, MD**, associate professor of Surgery in the Division of Acute Care Surgery and Vanderbilt Military Affairs Committee chair.

"Our experience has been that these relationships are mutually beneficial," he said. "In the current era, we're able to provide meaningful skill sustainment training so our military medical corps are ready and capable to take care of combat-wounded soldiers when they deploy," Dennis said.

"On the receiving end at Vanderbilt, we benefit from the expertise, education and training of our military partners as the military certainly has cutting-edge trauma research as well as other areas of medical advancements. We've been able to sustain these partnerships throughout the decades, and we look forward to continuing that for many, many years to come.

[Complete Story](#)



The Ike and Ann Robinson Society Reception celebrated the generosity of Medical Center leaders committed to leaving a legacy at VUMC. L-R: **Jeffrey Upperman, MD**; Anne Marie Tharpe, PhD; Paul Sternberg Jr., MD; Jeff Balser, MD, PhD

## Upperman among founders honored for philanthropy by Ike and Ann Robinson Society

Clinical, research and staff leaders who have made generous philanthropic contributions to VUMC were celebrated at the inaugural Ike and Ann Robinson Society reception.

Jeff Balser, MD, PhD, President and Chief Executive Officer of VUMC and Dean of VUSM, welcomed and thanked the founding members.

Named in honor of Roscoe "Ike" Robinson and his wife, Ann Allen Robinson, the society recognizes employees of VUMC who have made gifts of \$25,000 or more since 2017, or who have included the Medical Center in their estate plans

[Complete Story](#)

## Bacchetta performs life-saving double-lung transplant on South African patient who chose VUMC after global search

Mervyn Joseph knew in March 2022 when his health was rapidly deteriorating despite being treated with medication, to quickly seek lung transplant or he would die. He had been diagnosed with interstitial lung disease in October 2021 — a disease to which his father, brother and sister had succumbed.

Prior to his diagnosis, Joseph, an attorney in Johannesburg, South Africa, had always been active, going to the gym five days a week before the COVID-19 pandemic and working a demanding schedule. As with everyone else, his life changed significantly from 2020. Then in 2021, his breathing pattern altered, leading to the diagnosis of interstitial lung disease.

Joseph searched the world over for the best place to be considered for lung transplant. He was laboring to breathe, even during short walks. He didn't have much time.



Bacchetta

"I told my team back home that one of the places that I had identified was VUMC because it has got a very good reputation," he said. "And I immediately received a very positive response that, without a shadow of a doubt, they would recommend that I should approach Vanderbilt."

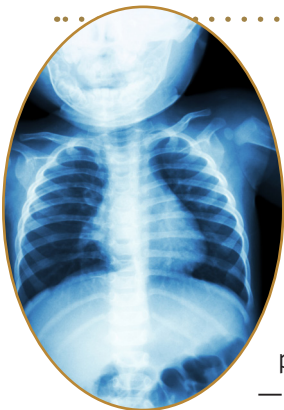
Joseph received a double-lung transplant performed by **Matthew Bacchetta, MD, MBA, MA**, professor of Cardiac Surgery and Surgical Director of the Vanderbilt Lung Institute.



Joseph

"I'm a new person," Joseph said. "I've in fact changed my birth date because I feel that I was reborn ... on the 24th of June this year."

[Complete Story](#)



## Bichell study defines role of steroids in congenital heart disease surgery

Steroids are commonly given to infants during open-heart surgery to reduce inflammation, but whether the drugs significantly improve patient outcomes has not been settled — until now.

Results of the STeroids to REduce Systemic Inflammation After Infant Heart Surgery (STRESS) trial, co-led by investigators from VUMC, were published in *The New England Journal of Medicine*, and presented at the American Heart Association Scientific Sessions 2022.

**David Bichell, MD**, chief of Pediatric Cardiac Surgery and William S. Stoney Jr. Professor of Cardiac and Thoracic Surgery, was one of three investigators in the randomized STRESS study. The largest prospective clinical trial ever conducted in the field of pediatric cardiology included 1,200 infants under 1 year of age who underwent elective cardiac surgery with cardiopulmonary bypass at 24 U.S. congenital heart disease centers, including VUMC.

Compared to placebo, methylprednisolone did not reduce the likelihood of "worse outcomes," including death during hospitalization or within 30 days after surgery, heart transplantation during the hospitalization, and a long postoperative hospital stay.

Clinical trials, particularly those involving young children, have been hampered by the limited number of patients at a single institution and the high cost of patient recruitment.

STRESS utilized the Society for Thoracic Surgeons database, which includes 98% of congenital heart disease surgeries performed in the United States and Canada. By identifying patients through registries, the cost of conducting this study was cut by about two-thirds, compared to traditional clinical trials with similar enrollment.

[Journal Link](#)

[Complete Story](#)



Bichell



Idrees compliments multidisciplinary team as VUMC named Center of Excellence for pancreatic cancer and pancreatitis

The National Pancreas Foundation has recognized VUMC as a Center of Excellence for both pancreatic cancer and pancreatitis.

The designation comes after a rigorous audit to determine that an institution offers multidisciplinary treatment of pancreatic cancer and pancreatitis with a focus on the “whole patient” to provide the best possible outcomes and an improved quality of life.

VUMC is the only National Pancreas Foundation Center of Excellence in Tennessee, having first earned the pancreatic cancer designation in 2021 and the pancreatitis designation in 2022. VUMC received renewal as a Center of Excellence for Pancreatic Cancer with added recognition for being an academic institution with expertise in research and clinical trials. The pancreatitis designation is for the treatment of adults.

Designation criteria include having the required expert physician specialists, such as gastroenter-

ologists, pancreas surgeons, medical oncologists and interventional radiologists, along with more patient-focused programs, such as a pain management service, psychosocial support and more.

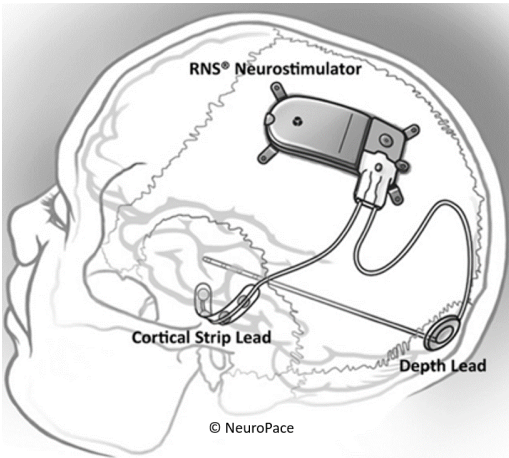
“I am very proud of this achievement,” said **Kamran Idrees, MD, MSCI, MMHC**, Ingram Professor of Cancer Research and chief of the Division of Surgical Oncology and Endocrine Surgery. “This award is certainly validation of our entire multidisciplinary team’s delivery of excellent patient care.”



Drs. Idrees and Wali Johnson in OR during robotic surgery

Complete Story

Englot team implants first NAUTILUS study patient at VUMC for treatment of idiopathic generalized epilepsy



A female adult patient with idiopathic generalized epilepsy (IGE) is now the first to receive neuromodular stimulation of the brain to see if it can help with seizures, as part of a clinical study. IGE, which is diagnosed in childhood or adolescence and often results in lifelong seizures, accounts for 15-30% of epilepsies.

It is the second most common type of epilepsy, after focal onset epilepsy, but there are currently no FDA-approved devices available.

The NAUTILUS clinical study is evaluating safety and effectiveness of the responsive neurostimulation (RNS) System in individuals age 12 and older with drug-resistant IGE, also known as primary generalized epilepsy. The first procedure took place at VUMC with co-investigators **Dario Englot, MD, PhD**, associate professor of Neurological Surgery and Surgical Director of Epilepsy, and Angela Crudele, MD, assistant professor of Neurology.

“We are pleased that the first surgery in this important study was performed at VUMC,” Englot said. “After surgery, participants will be randomized to have stimulation turned on or turned off for a period of time, and outcomes will be compared. Then, all participants will have stimulation turned on for treatment with the device.”

The RNS System is the only FDA-approved brain-responsive neuromodulation system that delivers personalized, targeted treatment at the seizure source.



Englot

Complete Story

Hawkins and Ford introduce first-ever nomogram, web-based risk calculator for rectal cancer recurrence

Nomograms are commonly used in oncology for risk assessment and to predict a patient’s surgical outcomes and survival.

However, colorectal cancer surgeons have lacked such a tool. Instead, they have relied on their own risk calculations after considering MRI images and clinical characteristics to predict key outcomes. Among their concerns is whether circumferential resection margins (CRM) — an important prognostic factor in local recurrence — will be positive or negative.

Since treatment decisions can differ based on this information, use of a formal risk calculator stands to improve outcomes. This led colorectal surgeons **Alexander Hawkins, MD, MPH**, associate professor of Surgery and director of the Colorectal Research Center, and **Molly Ford, MD**, also an associate professor of Surgery and director of the Vanderbilt Hereditary Colorectal Cancer Registry at VUMC, to approach surgery resident **Megan Shroder, MD**, with a proposal: to investigate the key predictive factors for determining positive CRM probabilities and their relative weight. The result was the first nomogram and web-based calculator for predicting positive or negative CRM.

“There have been many studies that look at patient demographics, tumor characteristics, treatment regimens and operative approach to help identify what factors independently put a patient at higher risk,” Shroder said. “But this is the first time we’ve had a clinical tool that puts all this together and gives you a quantified predictive value.”

“This tool can tell you that you may need to do a bit more extensive resection, or that you should perhaps wait a little longer to let the chemotherapy and radiation take effect,” Hawkins said.



Ford

Hawkins

Shroder

Complete Story

Guillamondegui among investigators who identify link between unprofessional surgeon behavior and adverse trauma outcomes



Guillamondegui

**Oscar Guillamondegui, MD, MPH** — chief of the Division of Acute Care Surgery in the Department of Surgery and holder of the Carol Ann Gavin Directorship in Trauma and Surgical Critical Care — was among five VUMC investigators who discovered a link between surgical professionalism and patient outcomes.

In a new retrospective cohort study in *Annals of Surgery*, Guillamondegui and team report that trauma patients who received care from at least one admitting or consulting service with a high proportion of physicians modeling unprofessional behavior were at a 24% increased risk of death or complications.

The team examined records of 71,046 patients admitted to nine geographically diverse Level I trauma centers over a five-year period. High-risk services were defined as teams in the top third with regard to the proportion of physicians with high numbers of patient complaints (leaving these physicians with Patient Advocacy Reporting System® scores above 50).

The study team lead investigators were William Cooper, MD, MPH, David Spain, MD, Gerald Hickson, MD, and Henry Domenico, MS. They were joined by investigators at 12 other institutions.

Complete Story



English part of patient’s multi-year care journey including LVAD, bariatric surgery, before Shah performs heart transplant



Veronica Llamas-Barajas

When Veronica Llamas-Barajas received a heart transplant at VUMC in April 2022, it was the culmination of a seven-year journey. Back then, her doctor told her she had end-stage heart failure and had maybe six months to live. She needed a heart transplant, but her weight was too high to qualify. She was 36 years old.

Her doctor referred her to Vanderbilt. She did not initially qualify for a transplant, but she could receive a left ventricular assist device (LVAD), an implantable, mechanical support system to pump blood through the body when the heart is too sick to do it.

Llamas-Barajas received her LVAD in 2018 at Vanderbilt, and in August 2021, she became the first LVAD patient in Tennessee to undergo bariatric surgery, in hopes of reducing her weight to qualify for a transplant. Right before her weight loss surgery, she weighed 297 pounds. At the beginning of April 2022, when she weighed 212 pounds, she got the news that she qualified for the transplant list. Two weeks later, she got “the call” that her new heart was available, and she was transplanted. Her hopes were fulfilled.

Patients will lose, on average, approximately 50-60% of their excess weight at one year, said her surgeon, **Wayne English, MD**, associate professor of Surgery and director of Clinical Research for the Vanderbilt Center for Surgical Weight Loss. Llamas-Barajas exceeded that goal, losing 87%, English noted.

“I am so proud of Veronica,” English said. “She was determined to succeed and followed all the recommendations after her surgery to accomplish her goals. I was quite emotional to learn that she received her heart transplant. This was an amazing moment for Veronica and a major milestone for VUMC.”

**Ashish Shah, MD**, professor and chair of the Department of Cardiac Surgery, performed Barajas’ much anticipated heart transplant.



English



Shah

[Complete Story](#)

Karp highlights impacts of award-winning transplant docuseries featuring VUMC



Karp

*Last Chance Transplant*, the docuseries filmed at VUMC in conjunction with 44 Blue Productions and Rock’n Robins Productions, received the 2022 Inspire Award from Donate Life Hollywood.

The award honors production projects from the previous year that raised awareness regarding the organ donation and transplantation process through genuine and compassionate storytelling. These productions used their unique platform to share information with audiences nationally and provide education and information as to how to become an organ donor.

“Having the opportunity to help raise awareness and provide individuals with the understanding of how life-changing organ donation is for each patient is something we are incredibly honored to be part of,” said **Seth Karp, MD**, H. William Scott Jr. Professor, chair of the Section of Surgical Sciences, and director of the Vanderbilt Transplant Center.

*Last Chance Transplant* shared the real-life journey of six patients awaiting organ donation and the vast medical team that worked determinedly to provide successful transplants and recovery.

*Last Chance Transplant* is currently streaming all episodes on discovery+.



[Complete Story](#)

Shaffer’s kidney transplant paired with urology procedure proved life-saving for four year patient

There’s a new sound these days in the Hickman family’s Seymour, Tennessee, home. It’s 4-year-old Finley, running. Finley had a lifesaving kidney transplant at Children’s Hospital and since recovering, he loves to run.

Late last year, Finley was not well enough to run. He was in renal failure, having hemodialysis three days a week to filter waste and water from his blood, and waiting — waiting for a kidney that would save his life.

Finley was born with a “pancake kidney” — his two kidneys are fused together and centrally located in the pelvis. Often, anomalies of the genitourinary system are detected on prenatal ultrasound, and patients are referred to pediatric specialists in urology and nephrology for prenatal evaluation.

In November 2021, they got the news they had prayed for — a living donor was available and surgery could be scheduled. After a delay from a positive COVID-19 test, Finley received his kidney transplant in January 2022.

**David Shaffer, MD** — professor of Surgery and surgical director of the Pediatric Kidney Transplant Program — was able to place the new kidney without removing the



Finley Hickman



Shaffer

pancake kidney, which had been a concern. John Pope, MD — professor of Urology and Pediatrics and director of the Division of Pediatric Urology — moved Finley’s urostomy conduit to a new location.

Transplant and urologic surgeons “work often and well together,” Shaffer says. He adds that “Monroe Carell has all the subspecialties aligned to be able to provide complicated care to the most challenging patients, and we have very good outcomes.”

[Complete Story](#)



Kaji

Goldenring, Kaji, and team publish in *Cellular and Molecular Gastroenterology and Hepatology (CMGH)*

**James Goldenring, MD, PhD**, professor of Surgery, Cell & Developmental Biology, and vice chair for Surgical Research and **Izumi Kaji, PhD**, assistant professor of Surgery along with multiple authors and collaborators were recently published in *CMGH*. The paper titled **Modeling of a novel patient-based MYO5B point mutation reveals insights into MVID pathogenesis** examines microvillus inclusion disease (MVID), a congenital disorder that presents in

infants with severe secretory diarrhea, typically within the first few hours of life. This study is supported by Goldenring’s RC2 and Kaji’s R01 projects and conducted in collaboration with Monroe Carell, Jr. Children’s Hospital at Vanderbilt and its cores.



[Journal Link](#)





Dewan



## Dewan research probes durability of endoscopic third ventriculostomy for patients who develop hydrocephalus

Upwards of one-third of patients with a posterior fossa brain tumor will experience persistent hydrocephalus following resection, requiring a second surgical intervention.

Surgeons' preferences, combined with case specifics, may determine whether cerebrospinal fluid is drained through the insertion of a ventriculoperitoneal shunt (VPS) or through an endoscopic third ventriculostomy (ETV), in which the surgeon creates a stoma at the base of the third ventricle.

While these decisions are invariably nuanced, pediatric neurosurgeon **Michael Dewan, MD, MSCI**, assistant professor of Neurological Surgery, is working to ferret out the pros and cons of each decision. Based on his research and clinical experience, he hypothesizes that stomas created through ETV may be generally underutilized as an option.

To compare outcomes from the two procedures, Dewan led a time-to-failure analysis published in the *Journal of Neurosurgery: Spine* that looks at the durability of 284 patients who underwent ETV versus 124 who received the shunt. Subjects were below 19 years of age and had developed hydrocephalus following a posterior fossa brain tumor resection. Overall, a significant survival advantage was not demonstrated by one procedure over the other.

Dewan and the Vanderbilt team are leading a multicenter study using data from more than a dozen high-volume pediatric centers across North America. The study is sponsored by the Hydrocephalus Clinical Research Network.

"With more data, I suspect we're going to learn there is a subset of patients that certainly benefit from ETV and a subset that do not," Dewan said.

[Complete Story](#)

[Journal Link](#)

## Sharp named Southern Surgical Association president

**Kenneth Sharp, MD**, professor of Surgery in the Department of Surgery and vice chair for Faculty Promotion and Development in the Section of Surgical Sciences, has been named president of the Southern Surgical Association (SSA).

Founded in 1887, the SSA has more than 800 members who are surgical professionals practicing in surgery or a surgical subspecialty. SSA members are selected based on their distinguished service in surgical research, prominence in clinical surgery, leadership and medical education.

"I am incredibly honored to be elected to this position," Sharp said.

"Vanderbilt has such a distinguished history of leadership in the Southern Surgical Association, and I want this to continue in the future."



Sharp

Vanderbilt surgeons have long held leadership roles in the SSA, beginning when Barney Brooks, MD, the first chair of Surgery at Vanderbilt University School of Medicine, was named president of the SSA during World War II (1942-1943); followed by H. William Scott, MD, (1977); past chair of VUMC's Section of Surgical Sciences, John L. Sawyers, MD, (1987); and Professor Emeritus and past chair of the Section of Surgical Sciences, James O'Neill, Jr., MD (2008).

[Complete Story](#)

## Two boys have a lot in common, VAD heart device procedure by Do and Christian

Rob Fulford and Tracey Hicks — one from West Tennessee and the other from East Tennessee — probably wouldn't have ever met except for happenstance.

Both extremely sick and in heart failure at the same time, they bonded over the need for a single device that saved their lives and served as a bridge to receive heart transplants, and perhaps as a bridge to a lifelong friendship.

Rob, 15, and Tracey, 16, were the first two pediatric patients, respectively, at Children's Hospital to receive an Impella 5.5 left ventricular assist device (VAD) — each receiving their device exactly one week apart in August.

An added benefit of the Impella, which can be used for up to 14 days, is that it does not require open-heart surgery. Instead, the device is inserted by catheter percutaneously, or through the skin, entering through the axillary artery (the main artery of the upper limb), to the aorta.

The Children's Hospital Pediatric VAD Program is supported by David Bearl, MD, MA, medical director, Nancy Jaworski, APRN, DNP, VAD Program coordinator, and **Nhue Do, MD**, surgical director of the program and the



Do



Christian



Tracey Hicks, 16, and Rob Fulford, 15, both of whom had heart failure, bonded during their hospital stay. They received heart transplants four days apart last August.

pediatric heart surgeon. Do performed the Fulford and Hicks procedures, assisted by

**Karla Christian, MD**, professor of Cardiac Surgery and associate chief of Pediatric Cardiac Surgery.

Since the hospital's first pediatric ventricular assist device surgery was performed in 2005, VADs have been implanted in 52 children at Monroe Carell, with 19 of those implanted since 2020. Currently, the VAD program employs four different VADs — Berlin Heart, PediMag/CentriMag, HeartMate 3, and most recently, the Impella.

[Complete Story](#)

## Tan and Roland discover first-time link between nerve cells, premalignant tumors and cancer progression



Tan



Roland

Immature nerves and neural precursor cells accumulate in a type of premalignant tumor in the pancreas as it progresses to invasive disease, according to a recent study in the *Journal of Pathology*.

**Marcus Tan, MBBS**, assistant professor of Surgery, and **Joseph Roland, PhD**, research associate professor of Surgery, used detailed histologic analysis and multiplex immunohistochemistry, including machine learning methods, to analyze nerves in surgically removed specimens of intraductal papillary mucinous neoplasms (IPMNs) of the pancreas. IPMNs account for up to 25% of all cases of pancreatic adenocarcinoma.

Tan, Roland, and their colleagues found that the density of nerves within these tumors increased from low-grade to high-grade dysplasia but did not further increase once invasive disease (cancer) was present. They also showed, for the first time, the presence of neural precursor cells within premalignant tumors, and these precursors also increased in density during progression to cancer.

The findings show that neural infiltration is associated with malignant progression in IPMN. Novel therapeutics that block neural development in the tumor may arrest malignant progression, the researchers suggest.

[Complete Story](#)





## Lovvorn study explores minimally invasive alternatives as part of pediatric Wilms renal tumor treatment

Wilms tumor is the most common renal malignancy of childhood, making up approximately 90% of all pediatric renal tumors, and are typically addressed by upfront, primary resection, followed by adjuvant therapy based on tumor stage and biology.

**Harold "Bo" Lovvorn III, MD**, professor of Pediatric Surgery, and Daniel Benedetti, MD, of the Children's Oncology Group at Children's Hospital, have recently introduced minimally invasive surgery (MIS) via laparoscopy as an option for patients who receive chemotherapy before resection, or about 20 percent of Wilms tumor cases.

The physicians who conduct research on and provide care to children with intra-abdominal malignancies have a special interest in the treatment of Wilms tumor. They point out that the less-invasive technique has several potential benefits for children with intra-cavitary solid tumors. These benefits include smaller incisions, shorter length of stay, and reduced postoperative pain.

Lovvorn and Benedetti hypothesized that this technique, in the context of neoadjuvant chemotherapy, could be a better option for resecting Wilms tumor in children and helping keep patients on time for their next treatment, whether that's additional chemotherapy or radiation.

"Over the past two decades, we've been asking the question: How can we be less invasive, cause less pain and keep our children on time for their next therapy cycle?" Lovvorn said. "We first published on MIS in Wilms tumor in 2010, and we've continued to build upon these results since."

[Complete Story](#)

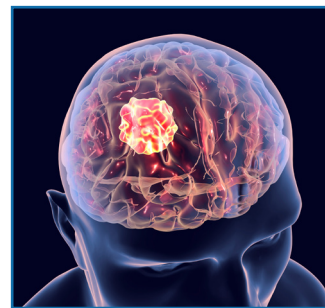
## Dewan awarded grant to explore why some gliomas spread like cancerous tumors

**Michael Dewan, MD, MSCI**, assistant professor of Neurological Surgery and surgical director of the Pediatric Neuro-Oncology Program at Monroe Carell Jr. Children's Hospital at Vanderbilt — has received a grant from the Pediatric Brain Tumor Foundation (PBTf) to study why some low-grade gliomas, a type of non-cancerous brain or spine tumor, spread and behave like cancerous tumors.

The study is a collaboration between VUMC and the Hospital for Sick Children (HSC) in Toronto, Canada.

"On behalf of the thousands of children battling this disease, PBTf is grateful to Dr. Dewan and the investigators from Sick Children's for prioritizing this disease as an area of discovery. More effective treatments for these children have the potential to change the trajectory of the patients' lives," said Amy Weinstein, PBTf national director of research investments.

In the study, VUMC and HSC, where Dewan completed a pediatric neurosurgery fellowship before coming to Vanderbilt, will collect tumor samples and molecular



information from all over the world to study and identify what's responsible for low-grade glioma spread and metastasis.

"Disseminated low grade gliomas are rare — in a year I might see

two or three, and that is true of other high-volume centers like Vanderbilt," Dewan said. "We recognize that we need many centers to contribute sufficient patients to achieve the kind of statistical power needed to draw actionable conclusions."

[Complete Story](#)

## Bonfield performs three spinal surgeries over seven years to restore young patient's mobility

Reagan Brown was 7 years old in 2015 when she started dragging her right leg as she walked. As her gait worsened, she was referred to Children's Hospital where a five-hour MRI of her back uncovered the problem — a large tumor that spanned five vertebrae in the thoracic region of the spine, which was "angry" and swollen from her lower back all the way up into her brain.

"It essentially took up the entire spinal cord in that area," said **Christopher Bonfield, MD**, associate professor of Neurological Surgery and director of the Pediatric NeuroSpine Program. "It was a massive tumor and in a bad location."



Bonfield

Reagan regained strength, and the pediatric neurosurgery team saw her every six months for scans to determine if there was more tumor left inside the spinal cord. In 2017, two years after the initial surgery, a small area began to grow again.

On the day of the surgery, when they arrived at Monroe Carell, Reagan's family found a pink gift bag in her room with a note from her operating room team, many of the same team she had two years prior. "It is such an honor for us to be able to take care of you again. You are a ray of sunshine that left

a lasting mark on our hearts. We will take the absolute best care of you," the card read.

Bonfield and his team were able to remove all the remaining tumor. In 2019, Reagan underwent a third spine surgery, this time to correct a hump (post-laminectomy kyphosis) that had formed on her upper back.

"Reagan has had a lot going on in that one area, and the fact that she's recovered as well as she has after each one of these operations, any of which could have caused permanent paralysis, is wonderful," Bonfield said.



Reagan Brown

[Complete Story](#)

## Goldenring's SCRIPS program awarded \$2.5M to fund physician-scientist awards

The SCRIPS grant — Supporting Careers in Research for Interventional Physicians and Surgeons, VUMC program director, **James Goldenring, MD, PhD**, Paul W. Sanger Professor of Experimental Surgery, is now accepting applications for scholar positions for early-career faculty, residents/fellows, and medical students.

SCRIPS aims to recruit, train and foster successful academic careers for surgeons and other procedure-based physicians pursuing basic and translational research. SCRIPS promotes physician scientists through mentored basic research training in the medical school, residency and fellowship years and through early faculty career development. SCRIPS accepted its first resident/fellow scholars in Fall 2018 and medical student scholars in Summer 2019.

Mentoring of all SCRIPS scholars will be facilitated by an Academy of Career Mentors, comprised of active MD



Goldenring

basic research surgeons/physician-scientists, and an external advisory board consisting of surgeon/procedural-physician leaders in basic and translational research. Support of mentored research pathways for residents/fellows and early career faculty will be enhanced by targeted loan repayment to ameliorate personal financial exigencies that can derail pursuit of academic research careers.

[Complete Story](#)



## Ukrainian surgeons visit VUMC to observe transplant protocols

A group of doctors from Ukraine visited VUMC in December to observe transplants and protocols as part of an initiative to establish a lung transplant program and improve heart transplantation in the war-torn country.

Only a single case of lung transplantation has occurred in Ukraine, said Vitalii Sokolov, MD, a thoracic surgeon who was part of a group of 13 Ukrainian physicians visiting the United States. Historically, Ukraine's transplant programs have been underdeveloped, as citizens would typically leave the country for hubs such as India and Belarus to receive transplants.

The Ukrainian government, which funds transplants for its citizens, determined in recent years that it would be more cost effective to develop a more robust transplant program in-country, Sokolov said. The need for a transplant program became even more critical after travel became difficult, first due to the COVID-19 pandemic in 2020 and then the Russian invasion of Ukraine in February 2022.

***"The Ukrainian team inspired us with their remarkable resilience and dedication to serving their patients. We hope we can be a resource for them as they build their programs."***  
— **Seth Karp, MD**

In just the last several years, the country has gone from 10 to 20 transplants per year to more than 200, said Rostyslav Semikov, co-founder and director of Peace and Development Foundation, which helped arrange the visit to the United States with the Ukrainian government. But very few of those are heart or lung transplants, because the procedures are more complex and require a larger, multispecialty team.



Members of VUMC transplant team met with visiting Ukrainian transplant doctors.

That's where the observation of Vanderbilt procedures comes in — not just witnessing the transplant surgeries themselves but understanding the protocols that surround them. That includes how to determine who is a good candidate for a transplant, how to keep patients alive during transplants using extracorporeal life support, and how to manage patients post-transplant with frequent laboratory tests and a balance of multiple medications.

[Complete Story](#)



Pete Weber

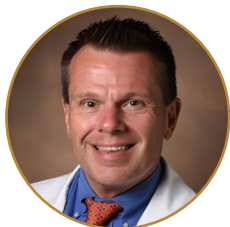
## Englot, Pierce and all-star surgical team treat Weber "Voice of the Predators"

*"Voice of the Predators" Pete Weber, doctors, and friends discuss his hydrocephalus diagnosis and his upcoming procedure known as a ventriculoperitoneal shunt (VP shunt).*

[Complete Story](#)



Dario Englot, MD, PhD



Richard Pierce, MD, PhD

## "Voice of the Predators" Weber returns after successful procedure at VUMC

*"I think I've said it on the pregame show and again during the intermission about five times, because it is worth repeating," ESPN 102.5 The Game's Max Herz said Saturday. "Pete had actual brain surgery on Monday and is announcing the biggest game that he should be announcing. It's unbelievable... For him to come back right away is not only so impressive, but almost expected. It's the best for everybody, and it has made so many people so happy."*

[Complete Story](#)

## Gorden performs life-saving liver transplant for VUMC Chief Communications Officer Howser

I've always been grateful to work with smart, hard-working colleagues who are completely dedicated to their responsibilities. Many are the very best in the nation or world at what they do. When you're dying, you find out in a very personal way how important this is, that our institution values and supports its people and their tireless efforts to save patients from dire circumstances.

While few will ever need an organ transplant, you should take comfort in knowing your colleagues will do everything possible to save your life.

Even before becoming listed with the United Network for Organ Sharing (UNOS) in hopes of a new liver, I knew I had the care, concern, and hundreds of years of expertise in my corner through the Vanderbilt Transplant Center. For example, my wonderful and inspiring hepatologist caring for me since diagnosis in 2003, Dr. David Raiford, used his considerable wisdom to wring the last mile out of my dying liver, buying me precious years in the process.

Looking back, it seems as if fate put me here at VUMC all those years ago at the home of the nation's best transplant center.

However, there are no guarantees when you need a donated organ. My UNOS listing started a monthslong wait due to the perpetual shortage of

donor organs. Sadly, in the U.S., according to UNOS, 17 people die each day waiting for organs. A new name is added to transplant wait lists in UNOS' system every 9 minutes. As of December 2022, there were more than 105,000 people hoping for a second chance.

On Tuesday, May 10, a date Blayne and I now recognize as my second birthday, entering my room at midday was my incredible surgeon, **Lee Gorden, MD**, professor of Surgery and Pharmacology, who said it was possible a donor liver was available. For my blood group — livers are matched by blood group and body size — I was the sickest on VUMC's list, and it was possible the organ could be mine.

I'm here to revel in another Christmas because of a dedicated team of renowned experts and my donor.



Gorden



John Howser

[Complete Story](#)

## Kidney Transplant Program celebrates 60th anniversary



L to R, Beatrice Concepcion, MD, Kathy Jabs, MD, and Rachel Forbes, MD, MBA, pose celebrating the 60th anniversary of Vanderbilt's first kidney transplant.

Sandra Thomas Walker, MD, will never forget the summer of 1972. Always healthy growing up, she suddenly came down with a persistent fever and chills. For answers, she went from hospital to hospital, eventually ending up

at VUMC with a diagnosis of kidney failure. Walker was so sick she had to drop out of classes. That all ended in January 1973, when Walker received a kidney transplant at VUMC and a second shot at life. As she celebrated her 50th anniversary of receiving a new kidney, the Vanderbilt

Transplant Center celebrated the 60th anniversary of its first kidney transplant, performed on Oct. 3, 1962.

The Adult Kidney Transplant Program would grow for nearly two more decades under the direction of **David Shaffer, MD**, professor of Surgery and chief and surgical director of the Division of Kidney and Pancreas Transplantation from 2001 to 2020. The current chief is **Rachel Forbes, MD, MBA**, associate professor of Surgery.

"We are grateful for the over 7,000 kidney transplant patients that have entrusted us with their care since the start of the program 60 years ago," Forbes said. "We want to always have our patients, their donors, and their loved ones in our minds as we strive to deliver high quality care and innovative options in kidney transplant for the next 60 years."

[Complete Story](#)



Lopez offers perspective on significant pediatric thyroid cancer advances



Thyroid cancer is the most common endocrine cancer in the pediatric population, representing approximately 2-4% of all pediatric malignancies.

**Monica Lopez, MD, MS**, a pediatric surgeon at Children's Hospital, provides care to children with thyroid cancer. Lopez also conducts research to improve the clinical care of pediatric patients with thyroid cancer along with her colleague, Sara Duffus, MD, assistant professor of pediatrics and pediatric endocrinology at VUMC.

The American Thyroid Association (ATA) published guidelines for children with thyroid nodules and differenti-

ated thyroid cancer in 2015. Previously, treatment recommendations for children were extrapolated from the ATA's adult guidelines.

Over the past decade, however, it has become increasingly clear that pediatric thyroid cancer contains several distinctions from the adult pathology, including clinical, molecular, and pathological differences. In a recent review, Lopez and Duffus discuss the evolving landscape of pediatric thyroid cancer and highlight the need for updated guidelines.

"The biggest unmet need in pediatric thyroid cancer today is delivery and access to multidisciplinary care," Lopez said. "For a child with a thyroid surgical problem, this comprehensive care extends beyond an operation and requires highly skilled team members devoted to the specialty of pediatric endocrine disorders."



Lopez

[Journal Link](#)

[Complete Story](#)

Gallagher is trained to do what most people can't imagine  
Triage, evaluate and care for the casualties of combat

**Kathleen Gallagher, MD**, GSR3 in the Department of Surgery and graduate of Vanderbilt University School of Medicine, served as a medic in the U.S. Army National Guard when she was an undergraduate at Bellarmine University in Louisville, Kentucky.

She was deployed to Iraq for a year, then Afghanistan, where she stabilized patients injured on the battlefield and assisted in evacuating them to mobile hospitals for further treatment.

So it's no surprise that when Russia launched a large-scale invasion of Ukraine, Gallagher felt the pull to do something. She took a week of vacation and traveled with the MedGlobal organization to Lviv, Ukraine, to help train emergency response medical teams for five large regional hospitals. Then, three weeks later she arranged to take a one-week leave of absence

to return with the nongovernmental organization to further implement the training. MedGlobal supports refugees, displaced persons and other marginalized communities in conflict-affected and low-resource settings around the world.

"I was watching the invasion happen on the news," said Gallagher. "It was very impactful for everybody, not just me. But with my background in combat medicine, it felt like there was something I could actually do to help."

The five hospitals Gallagher worked with are highly functioning regional trauma centers, but they don't have the training or capacity to shift to wartime operations in addition to their established responsibilities. The hospitals are receiving trainloads of casualties from the front each day.



Gallagher

**In one scenario drill, a rocket lands nearby and all of the casualties arrive at the hospital within 30 minutes. The drill helped physicians rapidly assign a triage category (green - walking wounded; yellow - delayed; red - immediate; and black - dead) within 30 seconds.**

[Complete Story](#)

Choi research grant bridges current and future

The Gastric Cancer Foundation has awarded a one-year \$100,000 research grant to **Eunyoung Choi, PhD**, assistant professor of Surgery in the Section of Surgical Sciences, to support her efforts to find a way to disrupt the transformation of dysplastic stem cells into stomach cancer.

The award was one of two grants announced last month by the California-based foundation to support "early- and mid-stage career scientists who have novel ideas for treating gastric cancer." The disease is predicted to kill 11,000 people in the United States this year.

Choi joined the Vanderbilt faculty in 2014. In June, she and her colleagues reported that they had identified a population of dysplastic stem cells present during the transition from pre-cancerous metaplasia to dysplasia in mouse and human stomachs. Dysplasia is a precancerous condition of the stomach that has an 80% chance of progressing to gastric cancer.

The study, published in *Gastroenterology*, reveals new insights into how gastric cancer develops and suggests a preventive treatment. Their investigation further showed that pyrinium, a commonly prescribed



Choi

treatment for intestinal pinworms, blocked regeneration of dysplastic stem cells by controlling the CK1a signaling protein in mouse models and in human organoids.

Regarding the grant, Choi described it as a "bridge" that could lead to longer-term funding of her research. "There are many patients suffering with this cancer in the world," she said in a news release. "I'm honored and excited to have this opportunity to help them."

[Complete Story](#)

[Journal Link](#)

Operating rooms at Monroe Carell Jr. Children's Hospital at Vanderbilt set for major renovation

Monroe Carell Jr. Children's Hospital at Vanderbilt is set to begin the first major renovation of its operating rooms since the hospital opened 19 years ago.



Upperman

The first phase of renovations will overhaul 10 of the hospital's 18 ORs, focusing on two surgical suites at a time. The first two rooms to undergo renovations will be the cardiac room and a multiuse room used primarily for robotic surgery cases. Each room will take about 13 weeks to complete.

"We are very excited to begin the renovations. This will enhance the physical plant structure, including everything from the number of outlets we have to the capacity of the ceiling to hold our new booms, monitors and enhanced technology," said Barb Shultz, MSN, RN, NEA-BC, associate chief nursing officer for Pediatric Surgical Services.

Our pediatric surgical teams perform surgery on more than 18,000 children annually, who come from Tennessee as well as across the Southeast and the nation.

Monroe Carell is also a Level 1 trauma center and is consistently one of the top four largest pediatric heart transplant programs in the country.

"As a leading destination pediatric surgical center, we are committed to delivering premier surgical care to children for everything from routine surgeries to complex, cardiac and neurosurgical procedures," said **Jeffrey Upperman, MD**, surgeon-in-chief and chair of the Department of Pediatric Surgery. "These renovations will continue to propel us forward as innovators in the pediatric surgical care space and to prepare us to serve children well into the future whether on the main campus or in Murfreesboro."

In addition to the 18 ORs at the main campus, there are three state-of-the-art ORs plus a GI procedure room at Monroe Carell Jr. Children's Hospital Vanderbilt Surgery and Clinics Murfreesboro, which opened in December 2019.

[Complete Story](#)



# Remembering Dan – A legacy of patient care and discovery

## Beauchamp, Means research targets disruption of key pathway tied to colon tumor malignancy

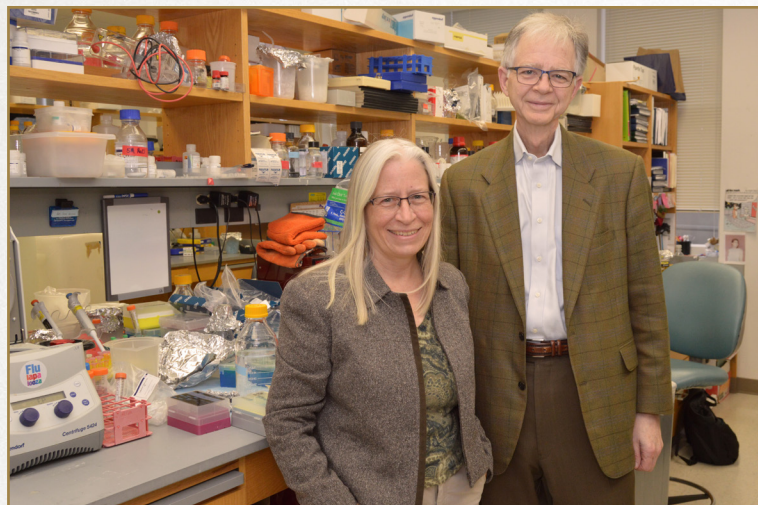
Chronic inflammation has been identified as a primary culprit in the initiation and progression of many cancers, and disruption of the transforming growth factor- $\beta$  (TGF- $\beta$ ) pathway is often implicated as a key factor.

Researchers at VUMC have been working to discover how this pathway regulates the development of colorectal cancers. Through two papers, published in 2018 and 2022, **R. Daniel Beauchamp, MD**, J.C. Foshee Distinguished Professor of Surgery and co-leader of the Gastrointestinal Cancer Research Program, and **Anna Means, PhD**, research professor of Surgery and Cell & Developmental Biology, explored characteristics of the TGF- $\beta$  pathway.

They and their colleagues determined that cellular loss of SMAD4, a transcription factor that propagates the signals downstream of TGF- $\beta$ , contributes to pro-tumorigenic inflammation in gastrointestinal and pancreatic tumors. Specifically, they elucidated the link between loss of SMAD4 and induction of the chemokine CCL20 and its receptor, CCR6, in promoting this response.

“The goal is to interrupt the complex, multicellular events that spur malignant growth in the colon,” Beauchamp said. Beauchamp and Means also see CCL20 and its unique CCR6 receptor as potentially attractive targets for therapy.

“We need to understand how CCR6 is working within the immune system and what exactly are the risks of side effects, such as potential unanticipated effects on inflammation,” Means said.



Drs. Anna Means and Dan Beauchamp in the Beauchamp Lab in 2019

[Complete Story](#)

## Surgical leader Beauchamp mourned by Vanderbilt

**R. Daniel Beauchamp, MD**, former chair of the Section of Surgical Sciences at VUMC and surgeon-in-chief of VUMC, died Nov. 27, 2022, at Alive Hospice. He was 66 years old.

Dr. Beauchamp, the John Clinton Foshee Distinguished Professor of Surgery, also held an appointment as professor in the Department of Cell and Developmental Biology. He served as chair of the Section of Surgical Sciences for 17 years, from July 2001 until he stepped down from the role in July 2018 to focus on his research. He served as deputy director of the Vanderbilt-Ingram Cancer Center (VICC) from 2011 to 2019 and was appointed to the role of vice president for Cancer Center Network Affairs in 2018.

Under Dr. Beauchamp’s leadership the Section of Surgical Sciences strengthened its national reputation for innovation and advancing surgical care. During his tenure as chair, he supported expansion of the department’s research endeavors until the group reached the top 10 in funding from the National Institutes of Health.

“Dr. Beauchamp will be remembered as one of VUMC’s legendary leaders,” said Jeff Balser, MD, PhD, President and Chief Executive Officer of VUMC and Dean of VUSM. “Dan’s contributions were enormous, helping propel our patient care and research initiatives to new heights. A true physician and scientist, he led with compassion and was tenacious in his efforts to advance our surgical programs while contributing enormously to the world of cancer research. A champion of diversity, equity and inclusion, Dan was steadfast in his commitment to people. We will miss him greatly, and our thoughts are with his wife, Shannon, and their daughter, Bryn.”

He positioned the Section of Surgical Sciences to successfully meet the demands of a steadily increasing volume of surgical cases and ambulatory visits, as well as expanded the training efforts for future surgeons. Today, the Section is home to 199 clinical and research faculty, and 118 residents and 37 fellows training in 19 specialties.

“Dr. Beauchamp’s leadership advanced our surgical programs across all areas, resulting in many of the strategic advantages of our health system,” said **C. Wright Pinson, MBA, MD**, Deputy Chief Executive Officer and Chief Health System Officer for VUMC. “During the 17 years that Dan led the Section of Surgical Sciences, the elements he championed expanded the scope and depth of our offerings, greatly benefiting our patients while creating superb training opportunities for many young surgeons. His legacy is one of vision and service. I express

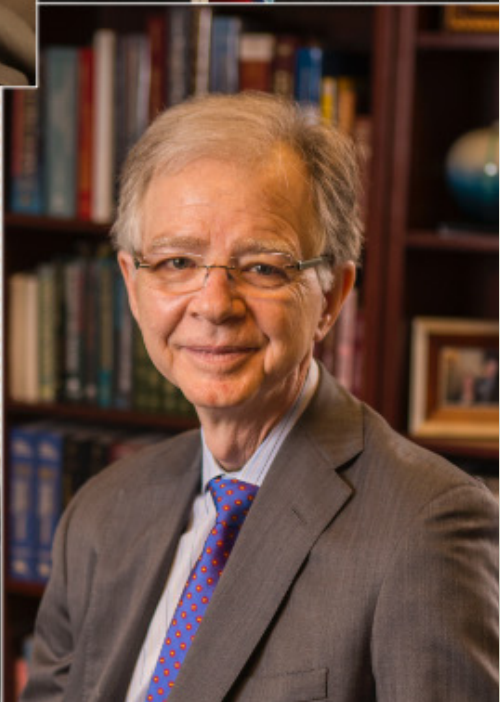
my sympathy to Shannon, Bryn, and the entire family for their loss.”

He also began a concerted and intentional effort to train and employ surgeons who better reflect the diverse population served by VUMC. Women now represent 32.9 percent of the Section’s trainees, while approximately 20 percent of all trainees are either African American, Hispanic, Native American, South Asian or East Asian. Also under Dr. Beauchamp’s leadership, the number of female surgical faculty more than doubled.

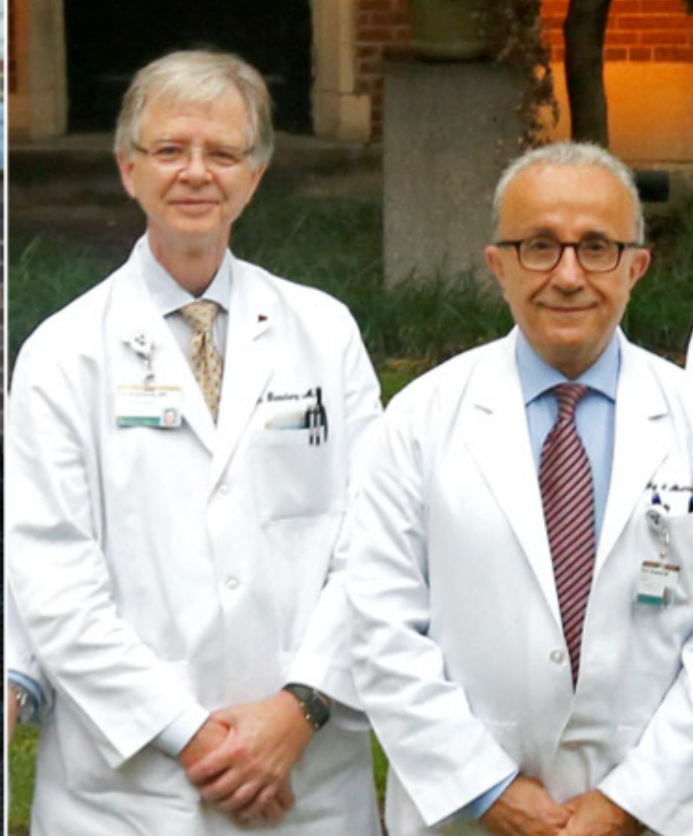
“Dr. Beauchamp was a visionary leader who contributed profoundly and seamlessly in both a local and national capacity across the missions of academic surgery: patient care, science, education and administration,” said **Seth Karp, MD**, H. William Scott Jr. Professor and chair of the Section of Surgical Sciences. “His legacy is our commitment to the importance of surgeons as scientists, and to training surgeon-scientists, to which he dedicated himself over a long career. His impact as a thoughtful, compassionate force cannot be overstated. This is a deep, personal loss for many at VUMC and across the country, and Dan will be dearly missed.”

















## New Faculty

### DEPARTMENT OF SURGERY

#### DIVISION OF ACUTE CARE SURGERY

*Assistant Professor of Surgery*

**Rachael Appelbaum, MD**

**Patrick Duffy, MD**

#### DIVISION OF SURGICAL ONCOLOGY & ENDOCRINE SURGERY

*Assistant Professor of Surgery*

**Cameron Schlegel, MD**

#### DIVISION OF SURGICAL RESEARCH

*Professor of Surgery*

**Elisa Gordon, PhD, MPH**

### DEPARTMENT OF PEDIATRIC SURGERY

*Assistant Professor of Pediatric Surgery*

**Jamie Robinson, MD, PhD**

*Assistant Professor of Clinical Pediatric Surgery*

**Margaret Gallagher, MD**

### DEPARTMENT OF PLASTIC SURGERY

*Assistant Professor of Plastic Surgery*

**Panambur ("Lax") Bhandari, MD**

*Professor of Plastic Surgery*

**William Lineaweaver, MD**

### DEPARTMENT OF THORACIC SURGERY

*Professor of Thoracic Surgery*

**Allan Pickens, MD**

## Faculty Promotions

### DEPARTMENT OF CARDIAC SURGERY

#### DIVISION OF PEDIATRIC CARDIAC SURGERY

*Professor of Cardiac Surgery*

**Karla Christian, MD**

### DEPARTMENT OF SURGERY

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