



DEPARTMENT OF SURGERY

2022 ANNUAL REPORT

Changing What's Possible

Throughout South Carolina

SURGICAL CLINIC LOCATIONS

- Beaufort County
- Bluffton | Okatie
- Charleston Peninsula
- Columbia
- East Cooper
- Florence County
- Georgetown County
- Greenville County
- Horry County
- Hilton Head Island
- Nexton
- North Charleston
- West Ashley

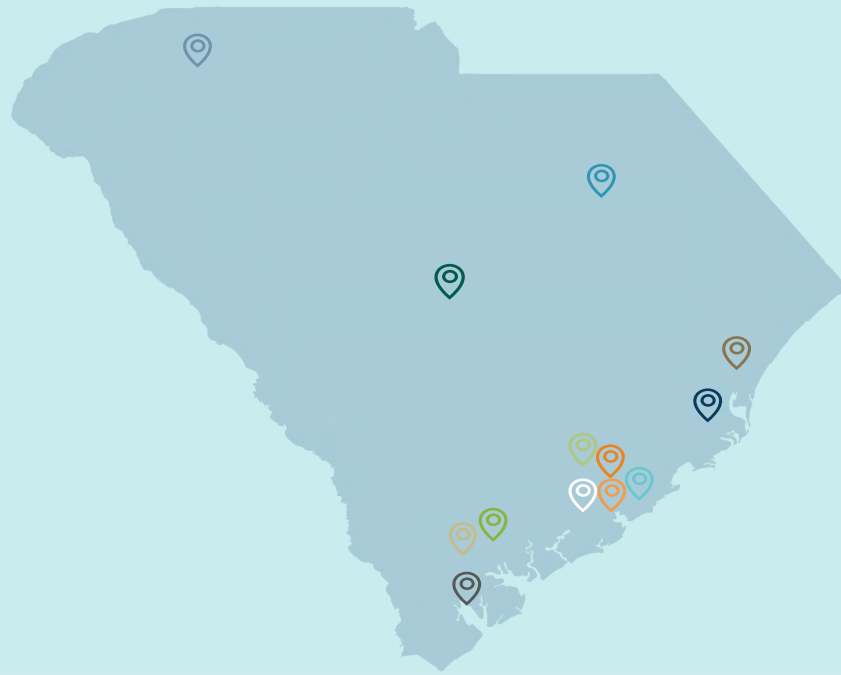


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ACKNOWLEDGMENTS:

The Department of Surgery would like to thank the many individuals, especially our leadership, whose collective efforts helped to complete this year's annual progress report.

Additionally, we would like to thank those who are featured within these pages for their continued service to MUSC and contributions to this publication.

COVER: Cover Image: SURGICAL FACULTY **Left Image:** Hongjun Wang, Ph.D., co-scientific director of the Center of Cellular Therapy and Charlie Strange, M.D. **Center Image:** Milton Armstrong, M.D. and plastic surgery resident Jenna Thuman, M.D. **Right Image:** Elizabeth Genovese, M.D. MS in clinic.

Editor, Creative and Production Manager: Lauren Hooker
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MESSAGE FROM THE CHAIR

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Prabhakar Baliga, M.D. FACS
Professor and Chair
Department of Surgery
Medical University of South Carolina

Despite the ongoing pandemic and the continual challenges in the ever-evolving healthcare landscape, our commitment to our patients remains resolute. We continue to move forward as a department, making great strides in improving patient care throughout the state. With expanded clinics, new highly specialized providers, quality improvement programs, and innovative research, our surgeon scientists are addressing some of the most critical health care issues, creating a better future for South Carolinians.

Some particularly noteworthy departmental highlights from the past year include:

- Unprecedented clinical growth across all divisions
- Pediatric Cardiac Surgery #4 in U.S. News & World Report's 2022-2023 rankings
- Tremendous progress in improving outcomes through artificial intelligence and design thinking, supported by a generous gift from Brigadier General Harvey W. Schiller, USAF Ret. Ph.D., and his wife, Marcia
- Significant new leadership positions, providing a surgical voice at the table across the university and health care system
- An expanded future surgical leaders program to include pathways for residents to specialize in
- Our DEI, Well-being, and Faculty Development pillars all have established strategic initiatives
- Expanding our good stewardship and citizenship through addressing gun violence in our community and across the nation
- Moving into the next fiscal year, expanding our citizenship through a new global surgery program

These strategic initiatives and many more that you will read about in this report illustrate how the department is poised to shape the future of surgical care for our patients through scientific discovery, education, and surgical leadership. I could not be prouder to be a part of this incredible group and the work we have accomplished this year.

DEPARTMENT OF SURGERY ADMINISTRATION

Prabhakar Baliga, M.D.
Chair, Department of Surgery

Jamie Meyer
Vice Chair, Finance and Administration

Cynthia Talley, M.D.
Vice Chair, Education

Michael Yost, Ph.D.
Vice Chair, Research

Mark Lockett, M.D.
Vice Chair, Veteran's Affairs

David Mahvi, M.D.
Vice Chair, Faculty Development

A. Sharee Wright, M.D.
Vice Chair, Diversity, Equity and Inclusion

Andrea Abbott, M.D. MSCR
Vice Chair, Personal Development and Well-being

STRATEGIC VISION: CHARTING THE PATH FORWARD

The Department of Surgery's clinical programs are recognized for excellence across a broad spectrum of surgical services for the treatment of highly complex diseases and are comprised of dedicated surgical innovators committed to advancing discoveries that are transforming patient care and health outcomes.

Over the past several years, the department has focused on strategic growth and recruitment, bringing world-class faculty to MUSC. With a 40% increase in our surgical providers over the past seven years, MUSC's Department of Surgery has grown to meet the clinical needs of the community. Throughout this growth, our commitment to our patients remains resolute. With ten clinical divisions and countless multidisciplinary collaborations, we provide leading-edge care to thousands of patients each year.

Our growing team is expanding our clinical footprint in South Carolina. In addition to the outreach clinics established over the past few years and the growing popularity of Telehealth, our surgical faculty are even more integrated within MUSC Health's growth across the state, improving access to care and bringing the latest and most innovative minimally-invasive surgical techniques shown to improve patient outcomes to all patients in South Carolina.

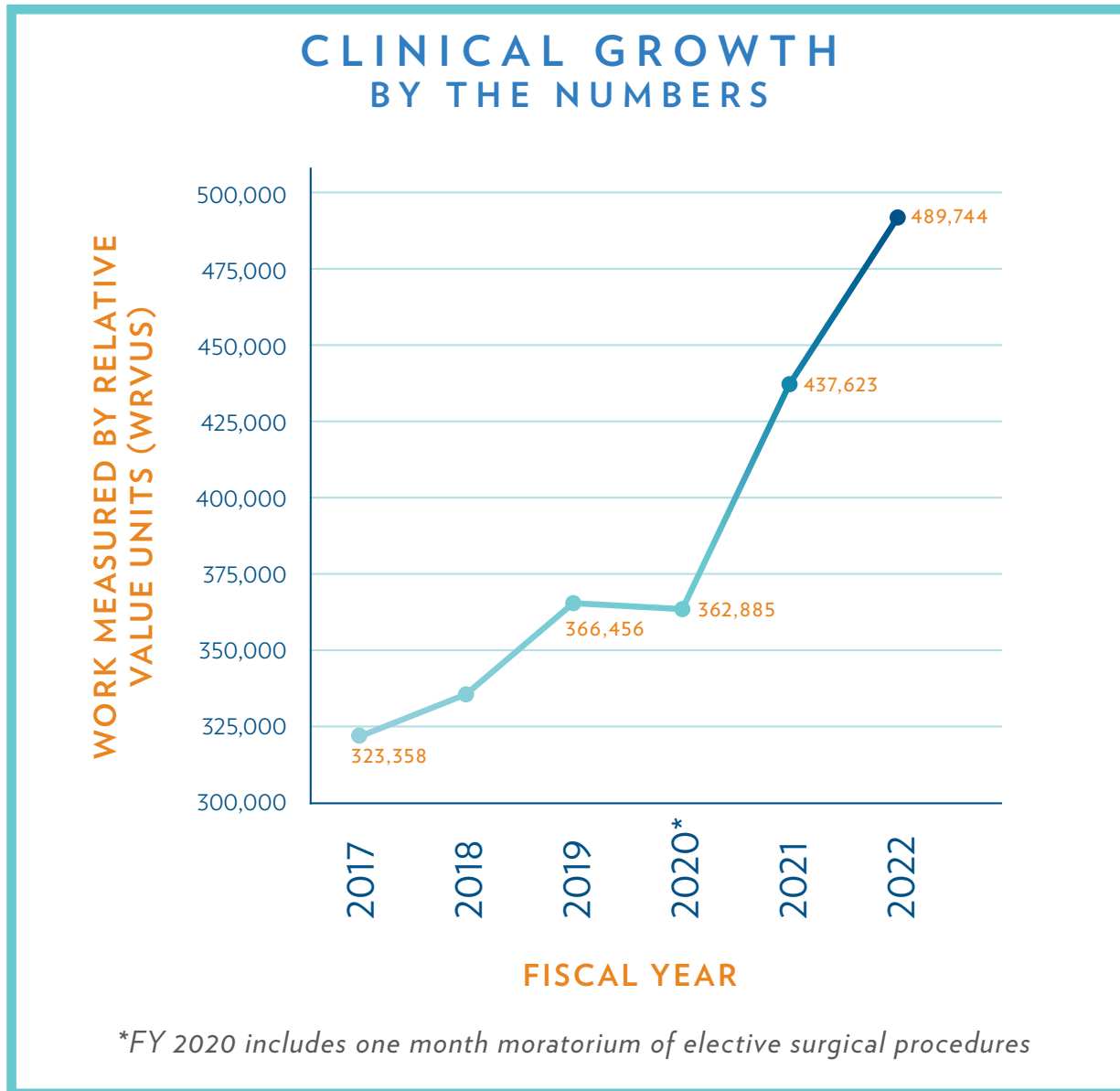
- MUSC Health - Lancaster received UNOS approval to initiate a kidney transplant program, making an immediate impact by offering renal failure patients a transplant option closer to home.
- We established a new affiliation at the Breast Care & Surgery Program at Beaufort Memorial Hospital, with the addition of breast surgical oncologist Tara Grahovac, M.D.
- Our vascular surgery division has expanded to the Columbia area. They now have clinic locations in Charleston, Beaufort, Georgetown, and Columbia.
- Our Cardiothoracic Surgery Division is a market leader in adult heart surgery in South Carolina. In FY-23, the division is expanding through a collaboration with Self Regional Healthcare Medical Center in Greenwood, SC, with plans for more collaborations throughout the state.



STRATEGIC VISION: CLINICAL GROWTH



With 17 new faculty recruited in the past two years and clinic expansion throughout the state, the department experienced significant growth across all divisions. The expansion in clinical expertise has led to a 50% increase in wRVUs over a five year period and a remarkable 35% increase in the past two years.



Facing Page Image: Department of Surgery Faculty Members

Not Pictured: Virgilio George, M.D., Derek DuBay, M.D., MSPH, Angello Lin, M.D., Scott Bradley, M.D., Fred A. Crawford, M.D. T. Konrad Rajab, M.D., Evert Eriksson, M.D., Marcie Dorlon, M.D., Stephen Fann, M.D., Steven Kahn, M.D., Stuart Leon, M.D., E. Douglas Norcross, M.D., Alicia Privette, M.D., Katherine Morgan, M.D., President David J. Cole, M.D., Mark Lockett, M.D., Kevin Delaney, M.D., Fernando Herrera, M.D., M. Lance Tavara, M.D., Ahmad Alqassieh, M.D., Matthew Gibson, M.D., Jean Marie Ruddy, M.D.

STRATEGIC VISION: NEW INSTITUTIONAL LEADERSHIP

Aligned with MUSC Healthcare and MUSC College of Medicine, our vision to excel as a leading academic surgical department remains clear. This year, several talented department members assumed essential leadership roles. The department also recruited a new faculty member to lead healthcare innovation. Each of these individuals is nationally recognized and brings to their new position valuable experience and extraordinary commitment.



Mark Lockett, M.D.

Mark Lockett, M.D. was named Deputy Chief of Staff for Acute Care Services at the Ralph H. Johnson VA Medical Center, where he previously served as Chief of Surgery. In this new leadership role, Dr. Lockett is responsible for supporting and managing departments that primarily provide acute care services including surgery, medicine, anesthesia, neurology, radiology, pharmacy, laboratory, and pathology, working closely with the VA Chief of Staff Chris Blasy, DO. He will also have an expanded role in the VA facility's quality, value, and safety efforts. Dr. Lockett is a Professor of Surgery and Vice Chair of Veteran's Affairs in the Department of Surgery, and serves as the surgical lead for the South Carolina Surgical Quality Collaborative.



Joseph Scalea, M.D.

Joseph Scalea, M.D. is a multi-organ transplant surgeon, innovator, and entrepreneur who joined MUSC in May. He was named the Executive Medical Director for MUSC Health Solutions, an organization that assesses and commercializes internal and early-stage external technologies. In this role, Dr. Scalea helps guide MUSC Health Solutions' strategic investments, and he guides technology development and implementation. Current investment activities include innovations in mobile-first patient-centered telehealth platforms, sleep science innovations, various MedTech concepts, and a technology-leveraged concierge surgical care model for elite athletes. Dr. Scalea is a Professor of Surgery and Vice Chair of Innovation in the Department of Surgery.



Cynthia Talley, M.D.

Cynthia Talley, M.D. was appointed to serve as Associate Dean for Graduate Medical Education (GME) for the College of Medicine. She assumed this role, reporting to Dr. Ben Clyburn, Senior Associate Dean for GME and CME/ Designated Institutional Official, on March 1, 2022.

In this role, Dr. Talley will direct the Annual Program Evaluation (APE) process, reviewing all necessary items with regard to programs' submission of the APE, responding to program or ACGME concerns, and assisting programs with missions, AIMS, action plans, and recommended strategies. Dr. Talley is a Professor of Surgery and Vice Chair of Education in the Department of Surgery.



Ravi Veeraswamy, M.D.

Ravi Veeraswamy, M.D. was appointed to a new physician leadership group, serving as Associate Chief Medical Officer (CMO) for Surgical Services of MUSC Health - Charleston. He joins Dustin LeBlanc, M.D., Associate CMO, ATC and Emergency Medicine, Scott Russell, M.D., Associate CMO, Children's, and Kristin Wise, M.D. Associate CMO, Adult Inpatient Care, who will all work closely with Carrie Herzke, M.D., CMO MUSC Health - Charleston. Last year, Dr. Veeraswamy was named the Chair of the Perioperative Executive Committee of the Charleston Division. His leadership and expanding roles facilitate optimal care of our patients and clinicians. Dr. Veeraswamy is Chief of Vascular Surgery and the Elliott-Robinson Endowed Chair of Vascular Surgery in the Department of Surgery.

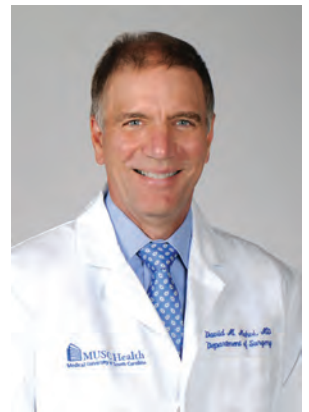
STRATEGIC VISION: IMPROVING OUR CULTURE



“I ask that all of us in the Department of Surgery bring added depth to our mission by embracing our three new pillars: providing a foundation for faculty development and mentorship, creating an inclusive workforce with a diversity of backgrounds and perspectives, and improving faculty, resident and staff well-being.”

-Prabhakar Baliga, M.D., Chair of the Department of Surgery

David Mahvi, M.D. was named the Vice Chair of Faculty Development. In his new role, he leads the charge of programmatic development for leadership and mentorship, providing a strong foundation for our faculty to become nationally-recognized surgical leaders, with phase 1 being the development of a Clinical Provider Peer-to-Peer Mentoring Program.



COVID- 19 has changed the delivery of health care. Many aspects of this were good - virtual visits to avoid travel for routine postoperative visits, and a focus on patient care for extremely ill patients come to mind.

On the flip side, since surgeons are essential workers, which in the beginning of the COVID pandemic required accepting personal health risks with no clear idea of the outcome of an infection, many surgical providers are now facing a population that is sicker, often avoiding health care visits in the early phase of the pandemic to protect their families. And, with no signs of the pandemic going away any time soon, we began to see provider burnout and provider isolation.

As a department, we chose to develop a new Provider Peer-to-Peer Mentoring Program to aid our surgical faculty and residents during these difficult times. We felt that there was no real forum for the discussion of unexpected surgical outcomes or unexpected conflict in the workplace.

After a review of established programs across the country, we selected a system developed by Jo Shapiro, M.D., the Director of the Center for Professionalism and Peer Support and a surgeon in the Department of Surgery at Brigham and Women’s Hospital (BWH). The Center has become a model for institutions seeking methods

to enhance teamwork and looking to help mitigate the epidemic of burnout plaguing the medical profession.

With the nation now in its third year of the pandemic, the need is greater than expected and we hope these efforts will reduce burnout and fatigue.

Our program is not meant for technical discussion, education or peer review. It is a mechanism to support faculty as they treat patients with more and more complex problems.

The program is completely confidential and offered to every surgeon with an unexpected complication or any surgeon referred to our team by another surgeon. This year, four of our faculty underwent training in a system designed to help surgeons with issues that could not be easily discussed in an open forum.

We do not offer counseling, but we have referred faculty to resources outside the department. We plan to expand the program to our residents this year. We have also invited Dr. Shapiro to present at a Grand Rounds on November 8, 2022. Everyone is encouraged to attend and learn from her about where our profession is headed and the significant impact Peer-to-Peer Support Programs offer clinicians.

STRATEGIC VISION: IMPROVING OUR CULTURE



Realizing that successful diversity, equity and inclusion programs need a champion who will plan, execute and manage the effort to push the boundaries and create new methods to foster intentional DEI progress in the workspace, Prabhakar Baliga, M.D. named Sharee Wright, M.D. the inaugural Vice Chair of DEI in FY21.

The department's goal is to not only have a diverse workforce but also to have systems and procedures that allow for all employees to be included and have their voices heard. To achieve this goal, Dr. Wright's overarching vision is to unify the whole department so all faculty, staff, and trainees feel included.

"Building a more diverse and inclusive environment makes us all much better versions of ourselves, which then has a ripple effect – creating amazing teams that respect and support each individual, and ultimately creating a culture where we are better able to understand and care for our diverse patient population," said Dr. Wright.

The first step was to focus on developing a DEI team and an advisory committee comprised of multiple members from various divisions. Dr. Wright and her team, including fiscal analyst Keller Lee, office manager Michelle Hill, and the advisory committee, paved a path forward to widen our lens and help us be more intentional in our day-to-day interactions.

This year they launched an engaging, invited-lecture series and "Our Voices," a collection of our colleagues' lived experiences posted to our website to dispel negative stereotypes and personal biases. To accomplish the larger vision of unifying the whole department, Dr. Wright secured a OneMUSC FY23 Strategy Grant for \$25,000 to develop a multi-faceted DEI curriculum within the department.

Once the plan rolls out, surveys will be used to gauge interest in topics, evaluate the talks and sessions, and continually improve on the program through quality improvement strategies to better meet the needs of our workforce.

The strategic plan for the upcoming fiscal year includes:

- Hosting small group sessions open to all members of the Department of Surgery
- Offering a DEI Speaker Series focusing on heritage months along with two DEI Grand Rounds
- Investing in an interactive display wall that will include three screens to reflect and celebrate our diverse teams

Dr. Wright says the next step will be to go deeper into workspace culture, working at the division level to develop a well-rounded perspective of DEI, so all voices in each specialty are aligned to provide optimal patient care.



STRATEGIC VISION: IMPROVING OUR CULTURE

Andrea Abbott, M.D. MSCR, a champion of well-being, has been named the Vice Chair of Personal Development and Well-being to increase wellness and reduce faculty burnout. Although physician burnout is not new, recent years have seen a spike in its prevalence, primarily due to the pandemic and unprecedented changes in the healthcare industry that have affected how physicians deliver care.



Dr. Abbott explains if you feel like all of your efforts are not being noticed or rewarded, or nothing is ever going to change to make your work environment better, that leads to burnout. And so identifying and addressing stressors that we can tackle and change is key to reducing burnout.

“But that’s not as easy as buying pizza,” said Dr. Abbott. “That takes time. And so you’ve got to buy the pizza in the meantime, as you work to achieve a cultural shift.”

To help create that shift, Dr. Abbott attended the Physician Well-being Director Course at Stanford University. The program equips leaders with knowledge and tools to catalyze changes at the local level, including departments, divisions, and work groups. Some of the key learning objectives are to recognize the importance of diversity, equity, and inclusion in achieving the goals of professional fulfillment and well-being and utilize effective methods to gain peer and leadership collaborations.

MUSC stood out among the international cohort by having pre-built pillars for DEI, faculty development, and well-being with

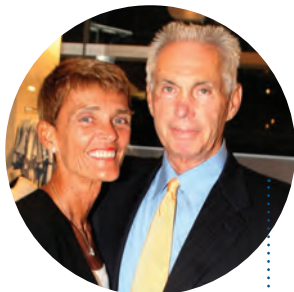
named leaders, support, and dedicated resources already in place. Dr. Abbott says we are fortunate to have Dr. Baliga as our leader, who values the wellness of our teams and understands the importance of integrating these three pillars to improve our culture.

She sees her role as bringing the DEI and Faculty Development efforts together to create a culture where we have one cohesive unit supporting each other. She acknowledges support is different for every individual, and that is one of the greatest challenges.

As the initiative rolled out, in addition to “buying the pizza,” once the COVID mask mandates were lifted, Dr. Abbott and her committee focused on creating fun, engaging social events and finding ways to reduce stress during the work week. All faculty, trainees, and staff were invited to attend two RiverDogs games and a Harbor Cruise this year. To help with increasing physical activity and reducing stress, two Peloton bikes are now available to members of the department.



\$1 Million Gift for Surgical Innovation



Through a generous philanthropic gift from sports executive and retired U.S. Air Force Brigadier General Harvey Schiller and his wife, Marcia, The Harvey and Marcia Schiller Surgical Innovation Center was created to spur innovation in how surgery is performed. The center is dedicated to innovating surgical procedures and developing new surgical tools and technologies to improve patient care.

JULY



Hollings Cancer Center launches Hereditary Cancer Clinic

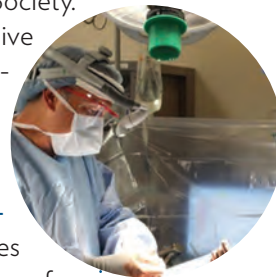
The Department of Surgery recruited **Kevin Hughes, M.D.**, an internationally recognized expert in genetic testing and the identification and management of patients with hereditary cancer risk, to lead the Hollings Hereditary Cancer Clinic. The new clinic is one of the first in the nation designed to care more effectively for patients with genetic mutations.

SEPTEMBER

MUSC Health recognized as a Collaborative Center of the Chest Wall Injury Society

MUSC Health is a national leader in rib fracture care and in 2021 was one of 10 centers recognized internationally as a Chest Wall Injury Collaborative Center from the Chest Wall Injury Society.

The only comprehensive chest wall injury center in the region, the Chest Wall Injury and Reconstruction Center, led by **Evert Eriksson, M.D.**, provides access to a population of underserved patients.



NOVEMBER

AUGUST

MUSC Health launches Cardiogenic Shock Team



Cardiogenic shock is one of the most severe forms of acute heart failure requiring immediate attention and often intensive care. MUSC Health launched a new cardiogenic shock program, led by cardiothoracic surgeon **Arman Kilic, M.D.**, that includes a conference line or “shock team” made up of specialists who can hop on an emergency conference call to provide a consensus opinion to cardiogenic shock patients who need highly specific, immediate care.

OCTOBER

U.S. First Lady Jill Biden visits Hollings Cancer Center; promotes health equity, breast cancer awareness

As part of the tour, Dr. Jill Biden met with **Nancy Klauber-DeMore, M.D.**, a breast cancer oncologist and researcher, and Ingrid Bonilla, a fourth-year MUSC medical student and breast cancer researcher.

Dr. Klauber-DeMore’s research identified a protein, SFRP2, that aids in cancer cells hijacking the development of new blood vessels, known as angiogenesis, to fuel their own growth. She explained to Dr. Biden how this research could lead to a means of cutting off fuel to cancer cells, which in turn would stunt the tumor’s growth.



DECEMBER

MUSC Health Transplant Program ranks among the best in the U.S.

The 2021 national rankings recognized MUSC Health as one of the highest volume transplant programs in the country. The program is led by division chief **Derek DuBay, M.D.** Most notably, MUSC Health is the 10th largest solid organ transplant program by volume inclusive of heart, lung, liver, kidney and pancreas transplants.



This is how we're Changing What's Possible



MUSC Children's Health is South Carolina's only Level 1 Children's Surgery Center, displaying excellence in inpatient & outpatient surgery

Robert Cina, M.D., director of Pediatric Surgical Quality, led the effort for the Children's Hospital verification process by the American College of Surgeons Children's Surgery Verification Quality Improvement Program. The Level 1 Children's Surgery Center recognition gives patients and their families an added level of assurance of our surgical quality and commitment to providing comprehensive and safe pediatric surgical care.

Resident Match Day

Congratulations to the talented group of medical students who matched with General Surgery, Plastic Surgery, Vascular Surgery and Cardiothoracic Surgery. The Department welcomes our new residents to our MUSC family.



Education Awards Ceremony

The Education Awards Ceremony recognized our exceptional faculty and trainees for their outstanding educational achievements, patient care, and research. Also recognized were residents who completed the Future Surgical Leaders Program, a first-of-its-kind surgical residency training program in the U.S.



JANUARY

MARCH

MAY

FEBRUARY

South Carolina Burn Center receives national ranking

The South Carolina Burn Center, led by burn surgeon Steven Kahn, M.D. was recognized as the highest performer in the U.S. for quality and survival outcomes in the most recent quarter of data derived from a national benchmarking database.



APRIL

MUSC doctors first at academic medical center to perform 'game changing' new heart failure device procedure

Vascular surgeon Jean Marie Ruddy, M.D., and colleague Anne Kroman, DO, PhD, are the first in the nation, second in the world at an academic medical center to use a new procedure to implant a heart failure device.



JUNE

Pediatric and Congenital Heart Center among the best in the nation

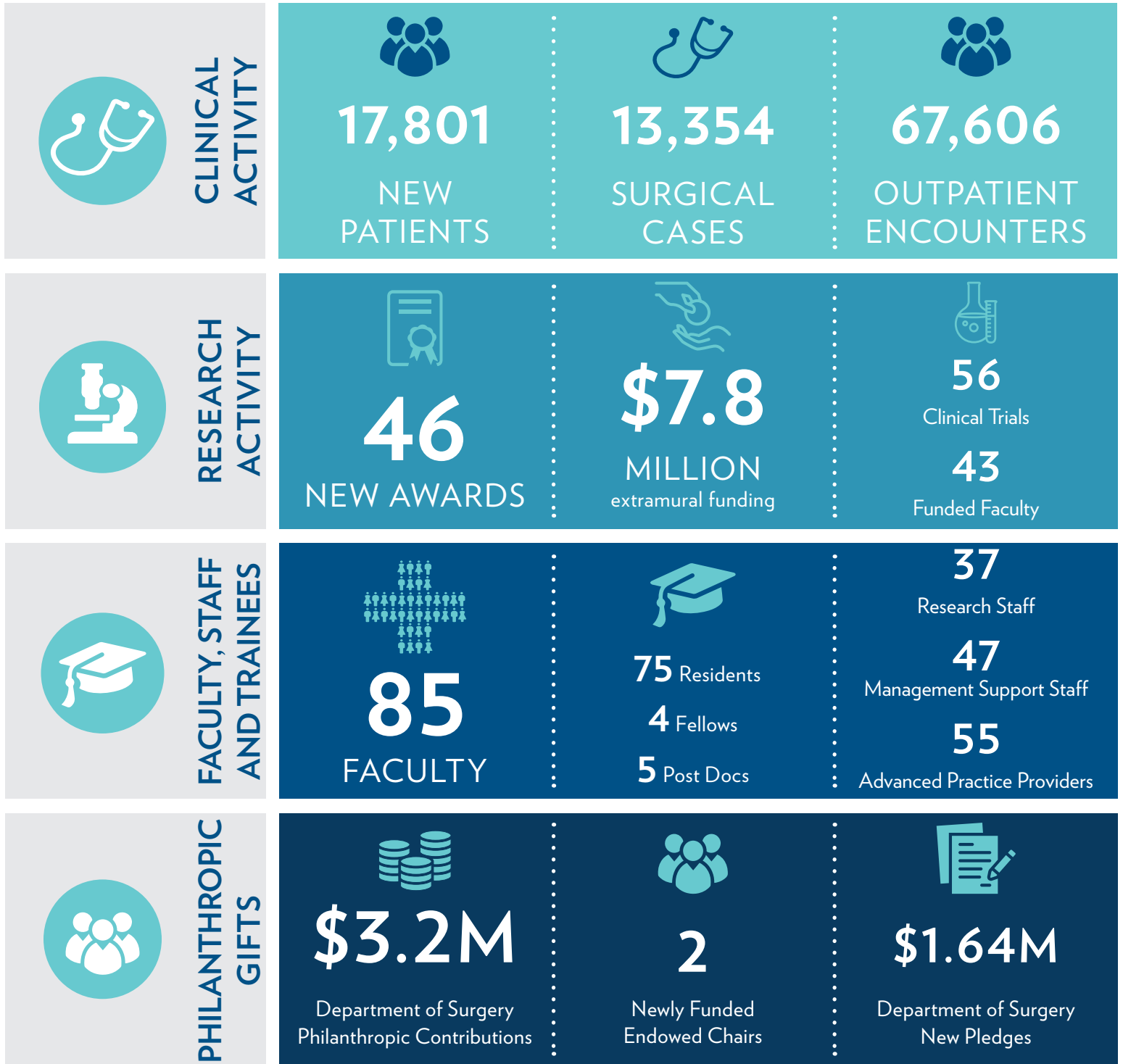
The Pediatric & Congenital Heart Center at the MUSC Shawn Jenkins Children's Hospital ranked a stellar No. 4 in the country in *U.S. News & World Report's* 2022-2023 Best Children's Hospitals survey and for the outcome component of this score, the Heart Center was in the top spot. This is a remarkable testament to the MUSC Health team, led by Scott Bradley, M.D. and Minoo Kavarana, M.D., and the Children's Heart Program of South Carolina.



FY 2022

BY THE NUMBERS

Our commitment to providing the highest level of compassionate patient care, best-in-class training for the next generation of surgical leaders, and cutting-edge clinical, basic science and translational research are Changing What's Possible for our patients.



NEW FACULTY FY 2022



Ahmad Alqassieh, M.D.
Transplant Surgery



Ian Bostock, M.D., MS
Cardiothoracic Surgery



Colleen Donahue, M.D.
Colorectal Surgery



Matthew Gibson, M.D.
Vascular Surgery



Kevin Hughes, M.D.
Oncologic Surgery



Joseph Scalea, M.D.
Transplant Surgery



Jeffrey Sutton, M.D.
Oncologic Surgery



Tracy Rice, M.D.
Transplant Surgery



Adam Tanius, M.D., MSc
Vascular Surgery

NEW FACULTY RECRUITS



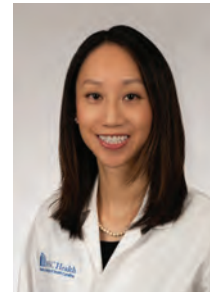
**John Del Gaizo,
Ph.D. Candidate**
Lead AI Scientist



Kathryn Engelhardt, M.D. MS
Cardiothoracic Surgery



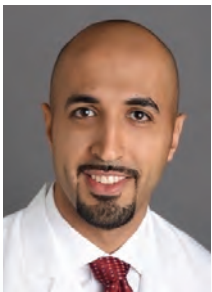
Tara Grahovac, M.D.
Oncologic Surgery



Bernice Huang, M.D.
Endocrine Surgery



Gabriel Klein, M.D.
Plastic & Reconstructive
Surgery



Michael Mallah, M.D.
General, Acute Care
& Trauma Surgery



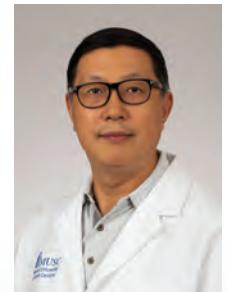
Rohit Mittal, M.D.
Burn Surgery



**Dirk van der Windt, M.D.,
MSc, Ph.D.**
Transplant Surgery



Gabor Winkler, M.D.
Vascular Surgery



Yuan Zhai, M.D., Ph.D.
Transplant Surgery - Research

AWARDS & DISTINCTIONS



A. Abbott



P. Baliga



I. Bostock



T.K. Byrne



T. Curran



D. Carneiro-Pla



D. Cole



E. Eriksson



H. Evans



V. George



B. Gibney



A. Hink



K. Hughes



A. Kilic



N. Klauber-DeMore



J. McGillicuddy



R. Mukherjee



N. Pope

- **Andrea Abbott M.D., MSCR** Chair of the MUSC College of Medicine Faculty Council; Quality Committee for the American Society of Breast Surgeons; Golden Apple Clinical Awards: Faculty Award Winner

- **Prabhakar Baliga, M.D.** Nominated to serve on the U.S. Department of Health and Human Services Advisory Committee on Organ Transplantation

- **Ian Bostock, M.D., MS** Society for Thoracic Surgeons (STS) Leadership Institute, STS Task Forces for Diversity, Equity and Inclusion and International Education

- **T. Karl Byrne, M.D.** Distinguished Faculty Service Award

- **Thomas Curran, M.D., MPH** Hollings Cancer Center Clinical Scholar for 2022-2024

- **Denise Carneiro-Pla, M.D.** Councilor of the American Association of Endocrine Surgeons; Distinguished Moderator American Association of Endocrine Surgeons Annual Meeting

- **MUSC President David J. Cole, M.D.** Charleston Metro Chamber of Commerce Joseph P. Riley Leadership Award

- **Evert Eriksson M.D.** CWIS President's Award for Excellence in Patient Care, Research and Mentoring

- **Heather Evans, M.D., MS** MUSC Physician Quality Partner of the Year Award

- **Virgilio George, M.D.** National Accreditation Program for Rectal Cancer (NAPRC) Education Governance Committee

- **Barry Gibney, D.O.** NCI K12 Paul Calabresi Career Development Award for Clinical Oncology

- **Ashley Hink, M.D., MPH** College of Medicine Faculty Council

- **Kevin Hughes, M.D.** Board of Directors of the American Society of Breast Surgeons

- **Arman Kilic, M.D.** John M. Kratz, M.D. Endowed Chair in Cardiac Surgery and Research

- **Nancy Klauber-DeMore, M.D.** Annals of Surgical Oncology Editorial Board; MUSC Hollings Cancer Center Developmental Cancer Therapeutics Program co-leader

- **John McGillicuddy, M.D.** American Society of Transplant Surgeons Transplant Accreditation & Certification Council Program Accreditation Committee

- **Rupak Mukherjee, Ph.D.** Golden Apple Pre-clerkship Awards: HRR Faculty Award Winner

- **Nicolas Pope, M.D.** American Association for Thoracic Surgery Dwight Harken Research Scholar

AWARDS & DISTINCTIONS CONTINUED

- **Rana Pullatt, M.D.** Chair, International Development Committee American Society for Metabolic and Bariatric Surgery; American Society for Metabolic and Bariatric Surgery Overall Program co-chair
- **T. Konrad Rajab, M.D.** Brett Boyer Foundation Discovery Award, Saving Tiny Hearts Society Award
- **Jean Marie Ruddy, M.D.** American Heart Association Vascular Health Advisory Committee, NIH Proposal Academy
- **Robert Sade, M.D.** Expertscape World Expert in Philosophy
- **Keith Smalls** Charleston County Criminal Justice Coordinating Council Governance Committee; TEDx Charleston presenter
- **Christian Streck, M.D.** Chair American Pediatric Surgical Association Trauma Committee; reappointed to the American College of Surgeons Committee on Trauma
- **David Taber, Pharm.D., BCPS** American Society of Transplantation Distinguished Senior Career Award
- **Cynthia Talley, M.D.** Associate Member, Academy of Master Surgeon Educators; Vice-Chair of the American College of Surgeons Young Fellows Association; SC ACS President - 2023
- **Dirk van der Windt, M.D., Ph.D.** ASTS Natera cfDNA Faculty Research Grant
- **Ravi Veeraswamy, M.D.** Elliott-Robison Endowed Chair in Vascular Surgery
- **Hongjun Wang, Ph.D.** Co-director for the SCTR Pilot Translational & Clinical Studies Program, American Diabetes Association's Islet Biology, Development, & Function Interest Group Leadership Team
- **Sanford Zeigler, M.D.** Thoracic Surgery Foundation Nicholas Kouchoukos Award



R. Pullatt



T.K. Rajab



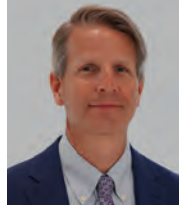
J.M. Ruddy



R. Sade



K. Smalls



C. Streck



D. Taber



C. Talley



D. van der Windt



R. Veeraswamy



H. Wang



S. Zeigler

PROMOTIONS



Fernando Herrera, M.D.
Professor



Mathew Wooster, M.D.
Associate Professor



The Harvey and Marcia Schiller Surgical Innovation Center

The Harvey and Marcia Schiller Surgical Innovation Center at the Medical University of South Carolina is a dedicated center for surgical innovation that aims to improve patient outcomes and healthcare delivery.

The center includes three pillars:

surgical artificial intelligence

investigator-initiated clinical trials, and

human-centered design.

The center serves as an incubator, centralizing and facilitating collaboration between clinical experts, Artificial Intelligence (AI) / Machine Learning (ML) experts, software engineers, clinical trialists, and innovation teams.

SURGICAL ARTIFICIAL INTELLIGENCE

In its inaugural year, the center has achieved several milestones:

- There has been rapid and exponential interest from all levels of medicine and data science to join the center. There are over 30 individuals with diverse backgrounds and skillsets solely in the surgical AI pillar, and more than 20 people in the clinical trials and human-centered design pillars.
- John Del Gaizo was recruited as the Lead AI Scientist. He joins us from the Clemson-MUSC Bioengineering Ph.D. Program, bringing extensive knowledge of MUSC data infrastructure and IT capabilities, as well as a deep understanding of the MUSC Healthcare system, creating a unique opportunity to be able to support and lead data science efforts in the center.
- Other key team members in surgical AI include Brett Welch, MBA, data science manager, Khaled Shorbaji, biostatistician, Ahmed Alameldin, who is completing his Master's in Biomedical Data Science at Clemson, and Roshan Mathi, MS, who has a Master's in Data Science and Analytics from the College of Charleston.

A significant focus of the center is on harnessing the massive quantities of healthcare data to develop predictive models that can be used for individualized patient care and to support clinical decision-making. They are using AI/ML and natural language processing to accurately and rapidly extract data from the electronic health record, which is used both for data registry reporting and also for quality improvement initiatives and clinical operations within the hospital system.

“MUSC has a very fertile environment for innovation and is filled with energy and momentum from a diverse group of people who understand AI/ML and how it can be incorporated into healthcare,” said Arman Kilic, M.D., Director of the Harvey and Marcia Schiller Surgical Innovation Center. “Thanks to the generous gift from the Schillers, we were able to rapidly develop AI/ML teams, build the needed infrastructure, and begin partnering with MUSC Health clinicians and researchers interested in using AI/ML for surgical innovation.”

SOME AI/ML PROJECTS INCLUDE:

- Developing a more efficient allocation system in the United States for matching donors and recipients for heart transplantation (*Arman Kilic, M.D.*)
- Improving methods of stroke risk stratification in carotid artery stenosis (*Ravi Veeraswamy, M.D.*)
- Predicting general surgery applicant board scores using natural language processing of their residency application packet (*Rupak Mukherjee, Ph.D.*)
- Reviewing and classifying medical literature on cancer susceptibility genes (*Kevin Hughes, M.D.*)
- Developing risk models and providing clinical decision support in peripheral vascular disease (*Tom Brothers, M.D.*)

INVESTIGATOR-INITIATED CLINICAL RESEARCH

David Taber, Pharm.D., MS directs the clinical research group, which serves to foster the development, testing and implementation of innovative devices, therapeutics, and health services interventions aimed at improving outcomes in patients undergoing surgery at MUSC. While most clinical trials conducted in the department are industry-sponsored, growing the number of investigator-initiated clinical trials (ITs) can be dramatically more impactful, particularly at the local level.

These trials stem from ideas generated by active investigators in our labs and clinical settings. They require significant resources since the sponsor investigator of the trial is not only sponsoring the study but also creating, coordinating, and carrying out the study, demonstrating collaboration, organizational capabilities, and institutional commitment.

HUMAN-CENTERED DESIGN

The Human-Centered Design (HCD) Program trains surgical residents and medical students in design thinking, equipping them with the skillsets and tools to become medical innovators. Through collaboration with the Baker School of Business at the Citadel, the HCD Program aims to integrate business development into the innovation workflow at MUSC seamlessly. Students and residents in the HCD Program are challenged to identify unmet medical needs and to design novel solutions to satisfy those needs.

Since the program's inception in 2019, the HCD Program, led by Joshua Kim, MS, and David Mahvi, M.D., has helped create more than 10 student-led start-ups at MUSC, some being recognized statewide as SC Innovates Student Pitch Competition winners across multiple years. Student teams participating in the HCD Program also compete in an internal Pitch Event, where they pitch to an external advisory board with decades of combined experience in medical entrepreneurship to get critical feedback before launching their ideas after the course. Recent successes include:

HEARTBEAT TECHNOLOGIES



One of the first start-ups created through the HCD Program, Heartbeat Technologies, has taken off and has gained widespread recognition at national conferences and state-wide events for their innovation around improving CPR outcomes. The start-up has completed clinical trials on healthy controls, pilot animal studies, and is being funded through grant awards and private investors.

GLOW INK SOLUTIONS



Through the MUSC Human-Centered Design program, Glow Ink Solutions (GIS) has amassed an interdisciplinary team of surgeons, residents, medical students, and financial analysts to commercialize Glow Dot. Patented in the USA and Europe, Glow Dot is a novel endoscopic tattoo aimed at improving tumor detection beyond the current standard of care. GIS has received substantial interest and grant funding to pursue translational research aimed at assessing product viability in an animal model.

"The HCD Team gave life to my idea!"

-Dr. Anthony de Haas

General Surgeon, Tidelands Health; Inventor of Glow Dot

SUPPORTING THE HARVEY AND MARCIA SCHILLER SURGICAL INNOVATION CENTER

The center is made possible through a generous gift from sports executive and retired U.S. Air Force Brigadier General Harvey Schiller and his wife, Marcia, to establish the Harvey and Marcia Schiller Surgical Innovation Center. Our goal is to match their generous gift of over \$1,000,000 to complete the development of a physical space to bring all parties into close proximity to foster collaboration and the innovative spirit.

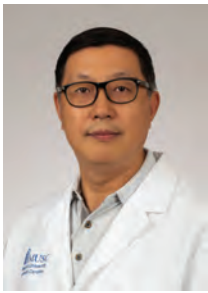
To learn more about how you can support the Harvey and Marcia Schiller Surgical Innovation Center and the tremendous impact it will have on patient care for years to come, contact Vera Ford, Director of Development, at fordva@musc.edu or 843-792-1840. To give now, visit <https://connect2.musc.edu/surgery>

RESEARCH HIGHLIGHTS



MICHAEL YOST, PH.D.
Vice Chair of Research

NEW LEADERSHIP LEADS TRANSPLANT IMMUNOBIOLOGY RESEARCH



The Lee Patterson Allen Transplant Immunobiology Laboratory (TIBL), under the direction of **Yuan Zhai, M.D., Ph.D.**, provides a collaborative platform for experimental and translational research in organ transplantation. Dr. Zhai, a nationally-renowned basic science researcher, joins forces with Drs. Joseph Scalea and Dirk van der Windt, who are not only experts themselves in the research of transplant

immunobiology but also practicing transplant surgeons.

The vision of the lab is to establish a collaborative working model to bring together the expertise and effort of basic scientists and clinicians to facilitate the identification and resolution of fundamental questions in the field in a more clinically relevant way. The over-

arching goal of the Lee Patterson Allen TIBL is to advance our scientific understanding of basic questions on graft injury/rejection/tolerance and to discover, test, and implement novel and clinically relevant immunologic solutions to life-critical problems through innovative translational research.

Transplantation is the gold standard of care in patients with end-stage organ diseases. The most challenging issue currently is the severe donor organ shortage. According to UNOS (United Network for Organ Sharing) data today, 105,879 patients are in need of an organ transplant. But only 20,663 of them have received one. Despite the substantial donor-recipient discrepancy, 18% of donor organs are discarded due to their non-ideal conditions. Ischemia reperfusion injury (IRI) is an inevitable event in organ procurement, preservation, and transplantation. It is the limiting factor in donor organ pool expansion, as “non-ideal” or sub-optimal organs are highly susceptible to IRI, leading to early graft dysfunction and rejection post-transplantation. No specific therapeutic strategies are currently available in clinical practice. Thus, a better scientific understanding of IRI is urgent and essential in our endeavor to improve graft qualities and increase organ transplantation. Dr. Zhai’s laboratory has been studying IRI for over 20 years and is the leading research group in the discovery of novel immunological mechanisms in liver IRI in animal models.

One common theme in the lab is immune biology and therapeutic application of myeloid cells, which are first responder innate immune cells against transplanted organs. Importantly, their enrichment in the graft and in vitro accessibility for manipulation makes them ideal targets for cell therapies. Experiments will explore their roles in tissue inflammation, repair, and regulation of allograft rejection/tolerance. These are exciting times in transplant immunobiology at MUSC.

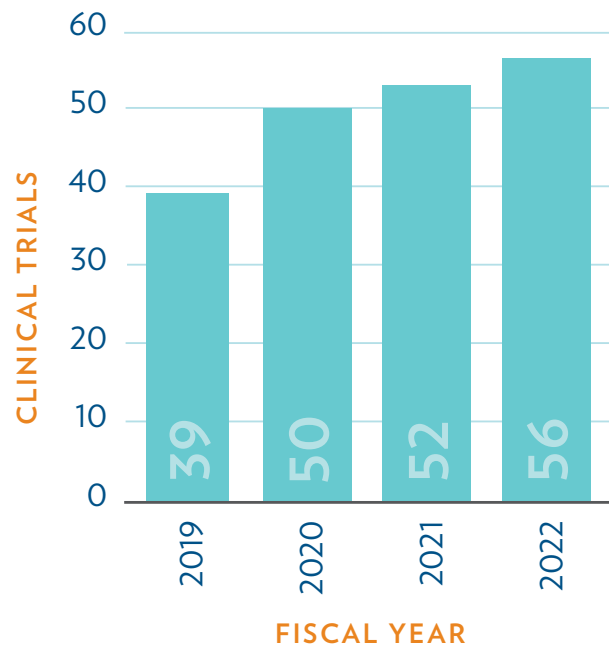
The Patterson Barclay Memorial Foundation was instrumental in the development of the Lee Patterson Allen Transplant Immunobiology Laboratory (TIBL). Through the generosity of the Allen Family, whose family foundation made significant gifts to advance the MUSC transplant research and honor their mother with the naming of the Lee Patterson Allen TIBL, our researchers in the TIBL are making great strides in addressing the health and longevity of transplant patients.

For more information, please contact **Vera Ford, Director of Development** at fordva@musc.edu or 843-792-1840.

RESEARCH HIGHLIGHTS: CLINICAL TRIALS

CLINICAL TRIAL GROWTH

The Department of Surgery has seen a steady increase in clinical trials over the past several years, with significant growth in industry-sponsored research and investigator-initiated clinical trials. It has a diverse and active portfolio of clinical research endeavors, including 42 enrolling studies and 16 in start-up or development, which span across most surgical disciplines housed within the Department of Surgery. In addition, the department has 14 clinical trials at the Hollings Cancer Center where our researchers are PIs or co-PIs. Our researchers are currently testing new drug therapies, devices, and cellular-based interventions designed to improve and extend the lives of South Carolinians seeking surgical care within our institution.



HIGH-IMPACT CLINICAL TRIALS

The department has also prioritized the importance of high-impact clinical trials that show potential to create a paradigm shift in clinical care. For some of these trials, like the SUMMIT and TRIOMPHE trials, we are the only medical center in the state participating. Examples of high-impact clinical trials currently being conducted within the department include:

- SUMMIT Trial using Tendyne Mitral Valve System for the Treatment of Symptomatic Mitral Regurgitation – *Cardiothoracic Surgery; Marc R. Katz, M.D., MPH*
- A trial of transplanting Hepatitis C-viremic kidneys into Hepatitis C-Negative kidney recipients, sponsored by the NIH – *Transplant Surgery; Derek DuBay, M.D. MSPH*
- DeepView SnapShot Portable (DV-SSP): Device Training Study – *Burn Surgery; Steven Kahn, M.D.*
- BATwire - Percutaneous Implant Kit – *Vascular Surgery & Cardiology; Jean Marie Ruddy, M.D.; Anne Kroman, DO, Ph.D. (Co-PIs)*
- TRIOMPHE Study, using the NEXUS Aortic Arch Stent Graft System specifically engineered for minimally-invasive total arch repair – *Vascular & Cardiothoracic Surgery; Ravi Veeraswamy, M.D. & Sanford Zeigler, M.D. (Co-PIs)*
- Shockwave use in aortic valve and aneurysm repair – *Vascular Surgery; Mathew Wooster, M.D.*
- Telemedicine (TOBI) for pediatric burn patients – *Pediatric Surgery; Aaron Lesher, M.D., MSCR*
- Nexobrid treatment for partial and full thickness burns – *Burn Surgery; Steven Kahn, M.D.*
- Comparison of surgery and medicine in diverticulitis – *Colorectal Surgery; Thomas Curran, M.D., MPH*
- A window trial on Boswellia, an extract from Frankincense, for breast cancer primary tumors – *Surgical Oncology; Nancy Klauber-DeMore, M.D.*
- Increasing socioeconomically disadvantaged patients' engagement in breast cancer surgery decision making through a shared decision making intervention – *Surgical Oncology; Andrea Abbott, M.D. MSCR*

RESEARCH HIGHLIGHTS: BASIC & TRANSLATIONAL SCIENCE

SCIENTIFIC DISCOVERY AT THE CELLULAR LEVEL

The Center for Cellular Therapy (CCT) is a university shared-core resource that is dedicated to scale-up translational studies and support investigator-sponsored clinical trials involving cellular therapy. High-impact clinical trials and important Standard of Care projects in FY22 include:

FDA-approved clinical trials:

- Mesenchymal stem cell (MSC) trials - indications Lupus (Principal Investigator: Dr. Gilkeson); Type 1 Diabetes (Principal Investigator: Dr. Wang)
- Mesenchymal stem cell co-transplantation with Islets-indication Chronic Pancreatitis (Principal Investigator: Dr. Wang)
- CD19 CAR T cell therapy (Principal Investigators: Dr. Hess and Dr. Mehrotra)

Standard of Care:

MUSC Health gives patients the added benefit of having this vital space available on campus.

- Autologous Hematopoietic progenitor cells (AHPC) - Cancer patients (in collaboration with the Clinical Pathology Cryo Laboratory)
- Islet Isolation - Chronic pancreatitis patients (Dr. Morgan)



Front row (left to right) Wenyu Gou, Ph.D., ZiAsia Jackson-Rose, Connor Klee. Back row (left to right) Prabhakar Baliga, M.D. Medical Director, Hongjun Wang, Ph.D., Norma Bradley, Tara Duke, MLS (ASCP)CM, Shikhar Mehrotra, Ph.D.

AWARDS & DISTINCTIONS



Hongjun Wang, Ph.D. Assumes New Leadership Roles

Hongjun Wang, Ph.D., professor of Surgery and co-scientific director of the Center for Cellular Therapy is an internationally-known scientist for her translational research in islet cell and type 1 diabetes research.

This year, she was named an advisor for the American Diabetes Association's (ADA) Islet Biology, Development & Function Interest Group Leadership Team. She also was named the co-director for the South Carolina Clinical & Translational Research Institute, a statewide NIH-funded Clinical and Translational Science Award Program Hub based at MUSC.



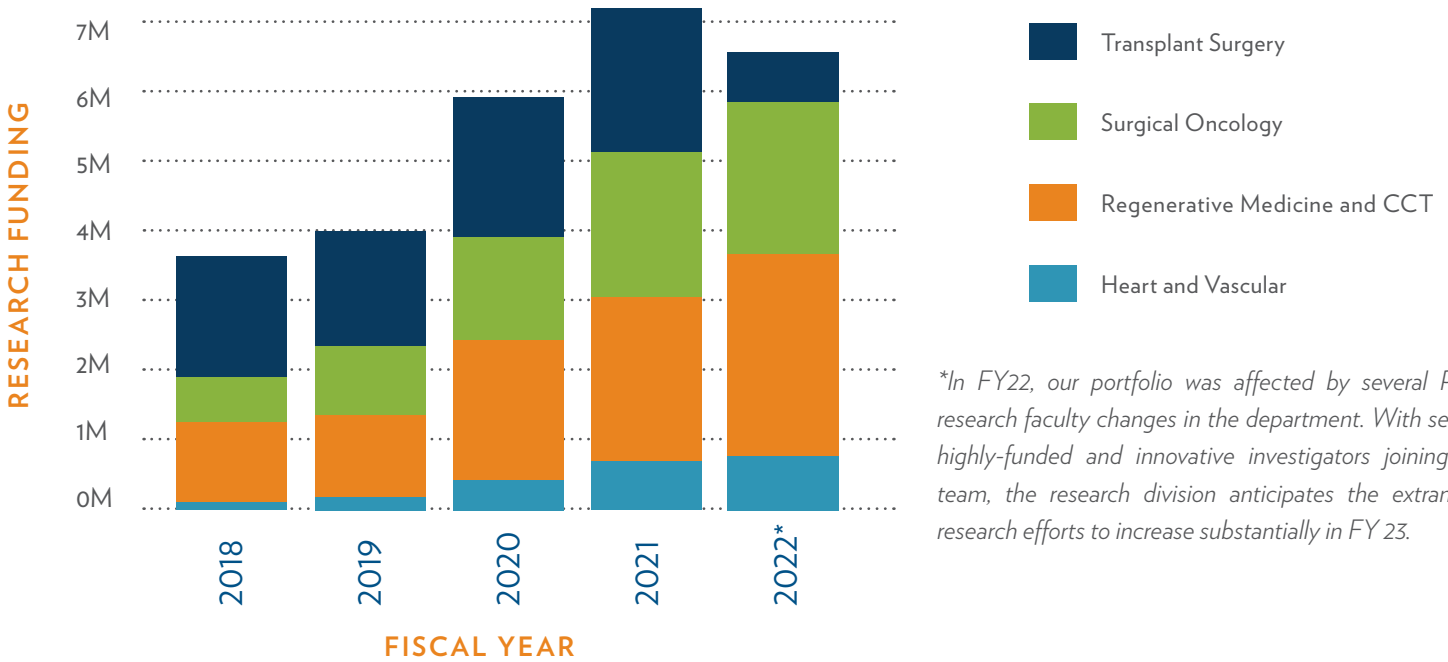
Barry Gibney, DO Receives Mentored Scientist Award

Barry Gibney, DO, was awarded the Paul Calabresi Career Development Award for Clinical Oncology K12. This mentored award provides a structured academic enrichment program aimed to train physician-scientists who can carry out investigator-initiated trials. Dr. Gibney is mentored by [Dr. John Wrangle](#) in the division of Hematology and Oncology.

They are developing a phase II cooperative trial, which aims to determine the effectiveness of neoadjuvant immunotherapy in the treatment of early-stage lung cancer – a stage where no other therapy outside of surgery or radiation exists. An additional aim of the study is to understand correlative outcomes to determine which patients best respond to these therapies.

RESEARCH HIGHLIGHTS

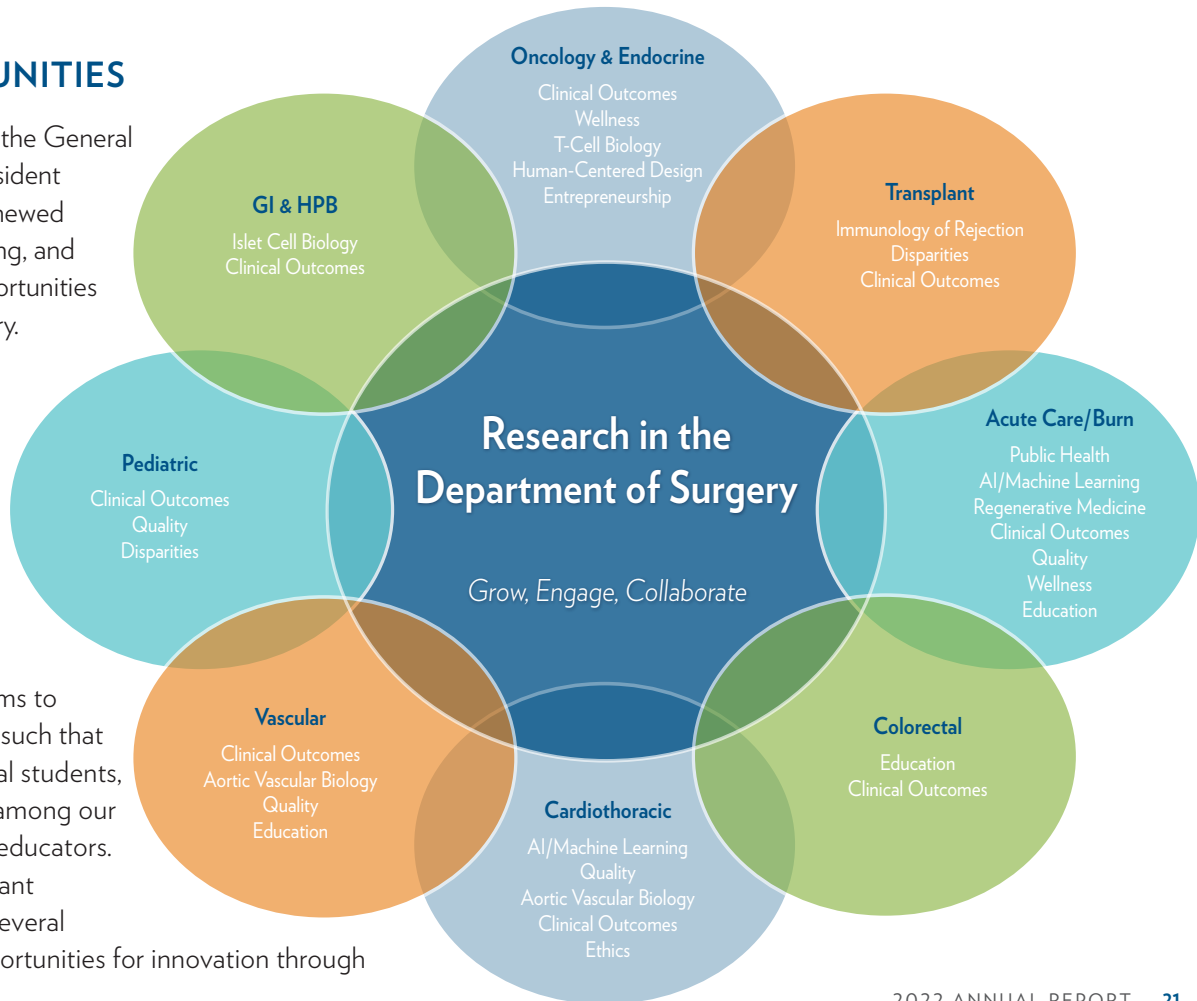
RESEARCH FUNDING HIGHLIGHTS: DEPARTMENT OF SURGERY FY RESEARCH EXPENSES



**In FY22, our portfolio was affected by several Ph.D. research faculty changes in the department. With several highly-funded and innovative investigators joining our team, the research division anticipates the extramural research efforts to increase substantially in FY 23.*

RESEARCH OPPORTUNITIES

The revision and realignment of the General Surgery Residency Program’s resident research expectations placed renewed emphasis on collecting, organizing, and understanding the research opportunities within the Department of Surgery. While developing the Research Opportunities web section (<https://medicine.musc.edu/departments/surgery/research/research-opportunities>), research leadership was excited to discover the depth and diversity of the research endeavors among our growing faculty. The research division aims to foster a culture of engagement such that undergraduate students, medical students, and residents seek mentorship among our surgeon-scientists and surgical educators. Moreover, recognizing concordant investigative expertise among several divisions will enable unique opportunities for innovation through collaboration.



RESEARCH HIGHLIGHTS



FOCUSING ON CARDIOVASCULAR DISCOVERY

The Cardiovascular Surgery Laboratory, led by **Jeff Jones, Ph.D.**, and **Jean Marie Ruddy, M.D.**, has grown significantly over the past year. Drs. Jones and Ruddy continue to focus on understanding the signaling pathways that change the aortic structure and

resident cellular function, with the goal of developing methods to therapeutically treat patients with aneurysms.

They have been fortunate to add three surgical research residents (**David Mann, D.O.**, **Ryan Gedney, M.D.**, and **Mario Figueroa, M.D.**) as well as an MSTP student (**Heather Holman, B.S.**), expanding their efforts to identify unique mechanisms driving extracellular matrix remodeling and how it can be modified in response to elevated blood pressure and changes in inflammatory signaling. In addition, the team added two new faculty: **Nick Pope, M.D.**, a cardiac surgeon who recently received the Dwight Harken Research Scholar Award from the American Association for Thoracic Surgery,

to study the role of Resolvins, a class of anti-inflammatory lipid mediators, in the treatment of thoracic aortic aneurysms; and **Konrad Rajab, M.D.**, a pediatric cardiac surgeon who has received several significant foundation awards, to fund his studies to develop a new surgical procedure to treat congenital heart valve disease and understand the role of “immune privilege” in heart valves.

Lastly, the researchers have partnered with a surgical resident, **Kristen Quinn M.D.**, and the Human Centered Design Team (including **Joshua Kim, MS**, **Heather Holman, M.D.**, and **Konrad Rajab, M.D.**), to assist in their development and submission of an NIH STTR grant to pioneer a new device to increase blood flow to the heart and brain during cardiopulmonary resuscitation.

Together, the cardiovascular team continues to leverage their diverse experience and expertise to translate basic science discoveries into clinical strategies that address important clinical problems.

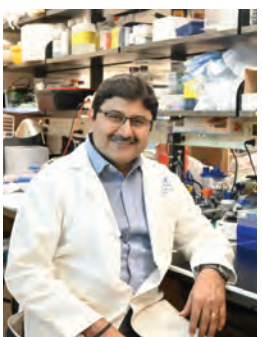


TEAM SCIENCE AWARD SPURS DEVELOPMENT OF NEXT GENERATION OF PANCREATIC CANCER THERAPEUTICS

Nancy Klauber-DeMore, M.D., and colleagues **Nathan Dolloff, Ph.D.**, and **John O’Bryan, Ph.D.**, received the Hollings Cancer Center Team Science Award to support their pancreatic cancer research. The team science project will support a pancreatic ductal adenocarcinoma (PDAC)

Therapeutics Program with the major objective to identify and develop new small molecule drugs and immunotherapies for pancreatic cancer. PDAC is the most common form of

pancreatic cancer, a deadly disease with a 5-year survival rate of only 10 %, highlighting the need for new and effective treatments. This award, with funding of up to \$150,000 per year over two years, will provide critical support to characterize the mechanistic synergy between these signaling pathways, conduct discovery programs to identify lead drug candidates and capitalize on the strengths and expertise of the three investigators and their research groups to establish a research cluster focused on developing the next generation of PDAC therapeutics.



RESEARCH PROJECT LED BY SHIKHAR MEHROTRA, PH.D. RECEIVES FDA APPROVAL

A new project led by MUSC Hollings Cancer Center researchers could significantly decrease the side effects associated with CAR-T-cell therapy and make the treatment available to more patients who could benefit. Led by **Shikhar Mehrotra, Ph.D.** co-leader of

Hollings’ Cancer Immunology Program, and Hollings hematologist and oncologist **Brian Hess, M.D.**, the project involves manufacturing a “purified” version of the CAR-T-cells that are currently used to treat patients with certain types of lymphoma and leukemia to reduce the side effects associated with treatment and potentially make the treatment more effective.

RESEARCH HIGHLIGHTS: CLINICAL OUTCOMES RESEARCH

- **Thomas Curran, M.D., MPH** focuses his research interests on mitigation of health disparities and optimization of care delivery in colon and rectal surgery, particularly colorectal cancer and inflammatory bowel disease. Additionally, he has recently been named a Hollings Cancer Center Clinical Scholar for 2022-2024 to evaluate an equity-focused intervention to improve utilization in guideline concordant extended venous thromboembolism prophylaxis after major cancer surgery.
- **Heather L. Evans M.D., MS** As Medical Director of Telehealth and Co-Investigator on the Center for Telehealth's HRSA grant, **Heather L. Evans M.D., MS**, completed pilot work in post-surgical remote wound monitoring, creating digital health care coordination protocols for other surgical services across MUSC regional health partners. She mentors students and residents in surgical infection clinical outcomes and quality improvement investigations. Dr. Evans also collaborated on a paper with **Aaron P. Leshner, M.D., MSCR**, who developed a novel smartphone application which improves at-home burn care delivery for patients and their families.
- **Evert Eriksson, M.D.** As Director of the Chest Wall Injury and Reconstruction Center at MUSC, **Evert Eriksson, M.D.** and his research group published 11 peer-reviewed research articles, with six more under review. They also published an article on an innovative technique in surgical rib fixation. His research team had three podium presentations and six abstracts presented at the Chest Wall Injury Society annual meeting. In addition, he was awarded the CWIS President's Award for excellence in patient care, research and mentoring. Dr. Laswi, surgical critical care fellow, was awarded the best research presentation at the CWIS.
- **Ashley B. Hink, M.D., MPH** Medical Director for the MUSC Turning the Tide Violence Intervention Program, examines risk factors for firearm injury, outcomes after violence, the influence of social determinants of health on injury and health outcomes, and implementing violence reduction and intervention strategies in healthcare. Dr. Hink is funded by the National Collaborative for Gun Violence Research (NCGVR) with a team of investigators from the American College of Surgeons Committee on Trauma (ACS COT).
- **Arman Kilic, M.D.**, Director of the Harvey and Marcia Schiller Surgical Innovation Center, had a very successful year for clinical outcomes research in cardiothoracic surgery. Here are some highlights:
 - Built an outcomes research team of ~ 30 residents, students, biostatistician, data manager, and data science Masters / Ph.D. students
 - Published >100 peer-reviewed manuscripts
 - Residents and students presented >10 abstract presentations at major cardiac surgery meetings
 - **Jennie Kwon, M.D.** was a Philip Caves Award finalist at ISHLT and presented a plenary talk at AATS on DCD heart transplantation. Dr. Kilic served as mentor and senior author for both papers.
- **Aaron P. Leshner, M.D., MSCR** focuses his research efforts on pediatric patients who are being treated for burn injury. His work has been supported by a K23 from the National Institute of Child Health and Human Development. His second avenue of research involves collaborative projects with neonatology on improving clinical outcomes in premature babies with necrotizing enterocolitis as well as a predictive model for improved identification of infants who require tube gastrostomy.
- **Dave Taber, PharmD, MS** focuses his research on developing and testing methods to optimize medication safety using technology and addressing racial disparities in access and outcomes in kidney transplantation. Dr. Taber receives two recent industry-supported research grants to study the impact of race on the incidence and severity of CMV infection after transplant and to conduct a randomized controlled trial assessing a new antiviral to prevent CMV infection after kidney transplant.



EDUCATION HIGHLIGHTS: FUTURE SURGICAL LEADERSHIP PROGRAM & PATHWAYS

Entering our third year of Future Surgical Leaders, we are rolling out an exciting new program to take our residents and fellows' professional development to another dimension. While the baseline outcome for all surgery residencies and fellowships is to produce safe and competent surgeons, Future Surgical Leaders has added training for medical professional competency. Now we have nearly 20 surgery programs joining us to create a Leadership Academy Collaborative instituting this program all over the country.

With the vision of our Surgery Education Council, we have developed the added dimension of Pathways to develop an academic niche. The Department of Surgery's faculty have volunteered to create and lead a number of unique professional tracks.

PATHWAY	FACULTY LEADER(S)
Surgeon Scientist	Jean Marie Ruddy, M.D., Michael Yost, Ph.D.
Clinical Research	Heather Evans, M.D. MS
Education	Adam Tanious, M.D., Jared White, M.D.
Quality	Mark Lockett, M.D.
DEI	Sharee Wright, M.D.
Non-Academic Practice	Jim Elsey, M.D., Sharee Wright, M.D.
Entrepreneurship	David Mahvi, M.D.
Leadership	Bruce Crookes, M.D., Dennis Vane, M.D.
Healthcare Disparity	Ashley Hink, M.D., MPH
Wellbeing	Andrea Abbott, M.D., MSCR
Global Health	Mike Mallah, M.D.

Residents and fellows will join “open house” meetings to explore different tracks before committing to the pathway and its individual training. “When our residents and fellows enter the market for fellowships or jobs, they will not only have competence as surgeons but also as professionals,” said Cynthia Talley, M.D., vice chair of Education. “Our graduates will set themselves apart from the competition by developing an early academic niche providing an added benefit to any practice they join.”



CYNTHIA TALLEY, M.D.

Vice Chair of Education

GENERAL SURGERY

Christian Streck, M.D. Program Director

Jared White, M.D. Associate Program Director

COLLEGE OF MEDICINE SURGERY STUDENTS

Mathew Wooster, M.D. Clerkship Director

Jeffrey Sutton, M.D. Associate Clerkship Director

Marcie Dorlon, M.D. 4th Year Students, SIG

PLASTIC SURGERY FELLOWSHIP

Milton Armstrong, M.D. Program Director

PLASTIC SURGERY INTEGRATED

M. Lance Tavana, M.D. Program Director

CT SURGERY INTEGRATED

Barry Gibney, D.O. Program Director

Nicolas Pope, M.D. Associate Program Director

VASCULAR SURGERY INTEGRATED

Ravi Veeraswamy, M.D. Program Director

Adam Tanious, M.D., MSc Associate Program Director

SURGICAL CRITICAL CARE FELLOWSHIP

Alicia Privette, M.D. Program Director

PEDIATRIC CT SURGERY FELLOWSHIP

Scott M. Bradley, M.D. Program Director

TRANSPLANT SURGERY FELLOWSHIP

John McGillicuddy, M.D. Program Director

EDUCATION HIGHLIGHTS: PRESENTATIONS & AWARDS

NC/SC ACS ANNUAL MEETING UPDATE

At the 2022 NC SC chapter of the American College of Surgeons annual meeting, MUSC had a record number of student and resident presentations across the General Surgery, Committee on Trauma, and Commission on Cancer Sessions.



MUSC Faculty & Residents at the Commission on Cancer; from left to right: Julie Siegel, M.D., Lex Booth, M.D., Jeffrey Sutton, M.D., Kristen Quinn, M.D., Andrea Abbott, M.D., MSCR, and Kevin Hughes, M.D.

Commission on Cancer and Paper Competition:

- **Second Place Award:** Reprogramming T-Cell Metabolism with IL-12 to Improve Cancer Immunotherapy – *Kristen Quinn, M.D.*
- The DR is In: Diastasis Recti (DR) is Associated with Incisional Hernia after Midline Abdominal Surgery – *Alexander Booth, M.D.*
- Breast Cancer Multidisciplinary Clinics Provide High Patient Satisfaction and Disease Comprehension – *Kristen Quinn, M.D.*
- The Anti-Proliferative Effects of Oral Boswellia Serrata, a Frankincense Extract, in Patients with Breast Cancer – *Julie Siegel, M.D.*

Committee on Trauma Session:

- **Second Place Award:** Redefining the Costal Margin: A Pilot Study Surgical Critical Care Fellow – *Mujahed Lawsi, M.D.*
- **Third Place Award:** Injury Characteristics Associated with Combined Fractures of the Forequarter – *Richard Slay, M.D.*

General Surgery Session:

- **Second Place Award:** The General Surgery Residency Applicant Perspective on Virtual Interviews Pre and Post Vaccine Availability – *Louis Runge, MS*
- **Third Place Award:** Comparison of Minimally Invasive Skin Grafting to Conventional Methods in the Treatment of 2nd and 3rd Degree Burns on Donor Site Area and Hospital Length of Stay – *Narayan Raghava, MS*
- Influence of Primary Language and Race on the Management of Pediatric Appendicitis – *Allison Frederick, M.D.*
- Extremity Tourniquets Raise Blood Pressure and Maintain Heart Rate – *Samuel Seigler, MS*

SC CHAPTER OF THE ACS LEADERSHIP



Cynthia Talley, M.D.
President of the SC chapter of the ACS



Andrea Abbott, M.D., MSCR
Secretary of the SC chapter of the ACS

EDUCATION HIGHLIGHTS: AWARDS CEREMONY & NAMED LECTURES



EDUCATION DIVISION HOSTS INAUGURAL AWARDS CEREMONY

The Department of Surgery presented the inaugural Awards Ceremony, recognizing exceptional faculty and trainees for their outstanding educational achievements, patient care, and research. The division presented awards previously delivered at the annual graduation dinners. Several new awards were instituted to recognize resident excellence in patient care, education, professionalism, and leadership.



The department was honored to have **David B. Adams, M.D.**, Distinguished University Professor Emeritus present the inaugural Awards Ceremony Lecture. Dr. Adams provided an insightful and inspiring talk, "Every Generation is the Greatest."



To see the full list of honorees, visit musculine.edu/surgery/education/awards

DISTINGUISHED VISITING LECTURES

The Education Division hosts a lectureship series, delivered by nationally and internationally recognized experts in their respective field.



B. Bass

Eric R. Frykberg, M.D. Lecture

Let's reboot together: Finding new purpose in the almost post-pandemic era
Barbara L. Bass, M.D. FACS

George Washington School of Medicine & Health Sciences



M. Hogg

Marion C. Anderson, M.D. Lecture

Robotic Surgery: the Past, the Present, and the Future
Melissa Hogg, M.D. MS

Northshore University Hospital



R. Weigel

Kredel-Springs Lecture

Basic Science Discovery in Surgery: A critical need for surgeon-scientists
Ronald Weigel, M.D. Ph.D.

University of Iowa



Y. Colson

Horace G. Smithy Lecture, AATS Foundation Gardner Lectureship

The Surgeon and Engineer Meet at Dinner
Yolonda Colson, M.D. Ph.D.

Massachusetts General Hospital



V. Gahtan

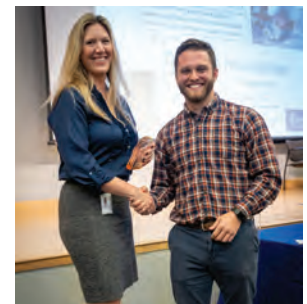
Vascular Lecture

From graduate medical education to board certification – the alphabet soup of regulation

Vivian Gahtan, M.D.

Loyola University - Chicago

GOLDEN APPLE AWARDS



Andrea Abbott, M.D. MSCR
Clinical Awardee: Faculty Award



Rupak Mukherjee, Ph.D.
Pre-clerkship Awardee: HRR Faculty Award

EDUCATION HIGHLIGHTS

RESIDENT LEADERSHIP IN THE AMERICAN COLLEGE OF OSTEOPATHIC SURGEONS



D. Mann



M. Batten

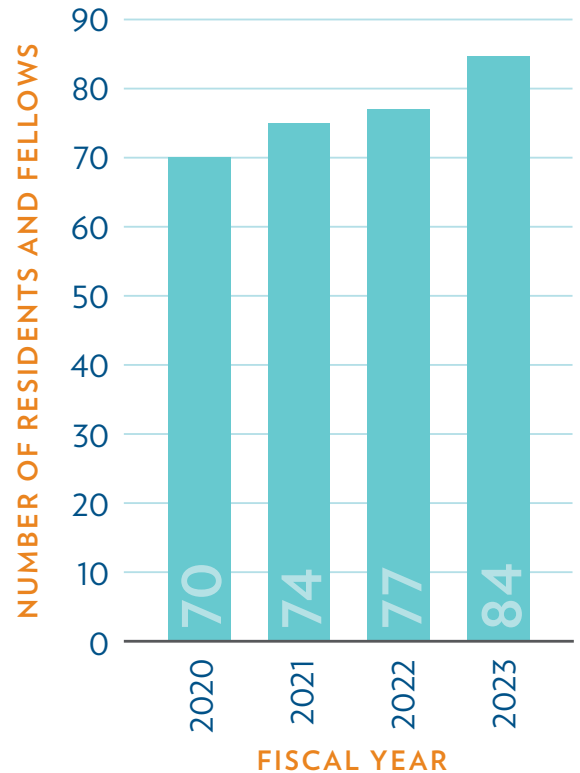
David Mann, D.O., MS serves as an Officer in the Resident Section of the American College of Osteopathic Surgeons (ACOS). He serves as Chair of Academic Advancement and Engagement and is responsible for leading a team in creating, promoting, and coordinating osteopathic surgical resident involvement in multi-institutional research collaboratives. In addition, as a member of the ACOS Resident Section Governing Council, he works to institute policy and actions that will further enhance the experience of osteopathic surgical residents across the country.

Macelyn Batten, D.O., PGY-2, was highlighted in the resident section of the American College of Osteopathic Surgeons Spring Newsletter, where she discusses her career interests and why she chose surgery.



PROGRAM GROWTH AND EXPANSION

- GENERAL SURGERY PROGRAM EXPANSION TO 8 RESIDENTS PER YEAR
- NEW HAND SURGERY FELLOWSHIP
- HEART TRANSPLANT & MECHANICAL CIRCULATORY SUPPORT FELLOWSHIP



2022 RESIDENT RESEARCH SCHOLARS' PRODUCTIVITY

Resident research scholars had multi-disciplinary interests and were highly successful in their endeavors.



L. Booth



J. Kwon



D. Mann



B. Ochoa



K. Quinn



H. Zlomke



In the **Division of Cardiothoracic Surgery**, our nationally-recognized surgeons provide care to diagnose and treat cardiac and thoracic patients, working with colleagues in cardiology and vascular surgery to develop innovative strategies resulting in the highest level of complex care with the least invasive procedures.

GROWTH AND EXPANSION

MUSC Health is a market leader in adult heart surgery in South Carolina. In FY-23, the division is expanding through a collaboration with Self Memorial Regional Hospital, where the MUSC Health cardiac surgical team will provide Self Memorial with expert in-community staffing and quality oversight and coordination for complex cases.

AT THE FOREFRONT OF DISCOVERY

The division of cardiothoracic surgery is deeply committed to improving patient care through collaborative research with the Structural Heart and Valve Center, the Division of Vascular Surgery, and the Advanced Heart Failure team, including 11 highly innovative valve clinical trials.

SUMMIT STUDY

Marc R. Katz, M.D. MPH, is the Principal Investigator (PI), for the SUMMIT Clinical Trial, studying a new transapical mitral valve replacement system to treat patients who are not appropriate for surgery and have limited treatment options. The Tendyne Transcatheter Mitral Valve is a bioprosthesis intended for transapical implantation without cardiopulmonary bypass

TRIOMPHE STUDY

Sanford Zeigler, M.D. is co-PI with vascular surgeon Ravi Veeraswamy, M.D. on the Triomphe study, using the NEXUS Aortic Arch Stent Graft System specifically engineered for minimally-invasive total arch repair, with less pain, less recovery time and better outcomes. MUSC is one of the first ten centers to enroll patients in this study; there will be only 30 centers across the U.S.

AATS FOUNDATION GARDNER LECTURESHIP



The Division hosted Yolonda Colson, M.D., Ph.D., Chief for the Division of Thoracic Surgery at Massachusetts General Hospital for the AATS Gardner Lecture. Women faculty and trainees had an opportunity to engage with Dr. Colson after the lecture.

NEW SURGEONS



Ian Bostock, M.D., MS joined the cardiothoracic surgery division in FY22 after completing his thoracic surgery training at The University of Texas MD Anderson Cancer Center in Houston. Dr. Bostock cares for patients with lung and esophageal cancer, mesothelioma, mediastinal and chest wall tumors, and benign esophageal diseases such as reflux, achalasia, and paraesophageal hernias. Additionally, he cares for end-stage lung disease in a multidisciplinary lung transplant team. He has special interests in health disparities, shared decision-making, esophageal cancer, and minimally invasive thoracic surgery.



Kathryn Engelhardt, M.D., MS joins the faculty in September as an assistant professor of surgery with clinical interests in thoracic malignancies and lung transplant. Her expertise is in tracheal surgery and airway disease, benign thoracic and esophageal disease, and minimally invasive surgery and lung transplantation. Dr. Engelhardt also has significant research interests in shared decision making (SDM.) Her long-term goal is to provide a generalizable SDM tool that can be applied to surgical decision-making scenarios to ultimately improve delivery of appropriate care that is concordant both with the clinical indication and with the patient values.

NEW FELLOWSHIP

Heart Transplant and Mechanical Circulatory Support Fellowship



Krishna Bhandari, M.D. completed an MUSC Pediatric Cardiac Surgery Fellowship. We are fortunate to have Dr. Bhandari continue his training at MUSC, where he will be the inaugural Heart Transplant and Mechanical Circulatory Support Fellow in the Division of Cardiothoracic Surgery.

CHILDREN'S HEART CENTER RANKS 4TH IN THE COUNTRY

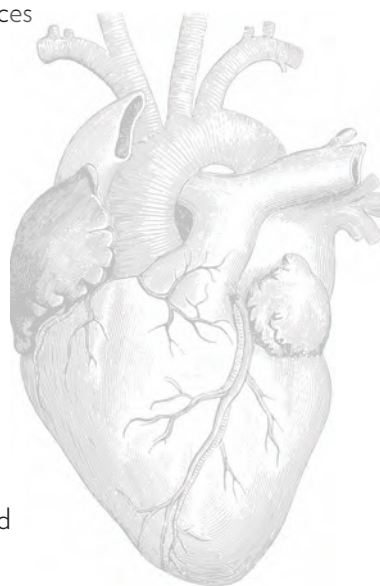
The Pediatric & Congenital Heart Center at the MUSC Shawn Jenkins Children's Hospital ranked No. 4 in the country in U.S. News & World Report's 2022-2023 Best Children's Hospitals survey and for the outcome component of this score, the MUSC Pediatric & Congenital Heart Center received the #1 spot. Additionally, the Pediatric and Congenital Heart Program was recognized as providing exceptional care by the Society of Thoracic Surgeons Congenital Heart Surgery Public Reporting. Their overall 4-year observed mortality is 1.28% (expected 2.45%), almost 50% less than expected. In addition, the patient's length of stay is lower than the national average for all ten benchmark operations. You can see more details on the

pediatric heart surgery outcomes page.

The Heart Center is led by **Scott Bradley, M.D.**, section head for Pediatric Cardiac Surgery, and **Eric Graham, M.D.**, chief of Pediatric Cardiology. Pediatric and congenital heart surgeon **Minoo Kavarana, M.D.**, serves MUSC Health as the surgical director of Pediatric Heart Transplantation and Mechanical Support. He has worked with Dr. Bradley and the multidisciplinary team for more than ten years. With the addition of pediatric cardiac surgeon **T. Konrad Rajab, M.D.**, and the opening of the new state-of-the-art children's hospital, the pediatric cardiac team was able to care for more children in need of critical heart surgeries.

AWARDS & RECOGNITIONS

- **Ian Bostock, M.D., MS** Society for Thoracic Surgeons (STS) Leadership Institute, STS Task Forces for Diversity, Equity and Inclusion and International Education.
- **Barry Gibney D.O.** NCI K12 Paul Calabresi Career Development Award for Clinical Oncology
- **Arman Kilic, M.D.** John M. Kratz, M.D. Endowed Chair in Cardiac Surgery & Research
- **Nicolas Pope, M.D.** American Association for Thoracic Surgery Dwight Harken Research Scholar
- **T. Konrad Rajab, M.D.** Brett Boyer Foundation Discovery Award, Saving Tiny Hearts Society Award
- **Sanford Zeigler, M.D.** 2022 Nicholas Kouchoukos Fellowship from the Thoracic Surgery Foundation



BY THE NUMBERS

- **#1** STATE MARKET SHARE
- **#4** PEDIATRIC CARDIAC SURGERY *U.S. News & World Report*
- **#13** LARGEST VOLUME CENTER - HEART TRANSPLANTS
- **24%** INCREASE IN ADULT HEART TRANSPLANTS
- **81%** INCREASE IN ROBOTIC THORACIC SURGERY



MARC R. KATZ, M.D., MPH
*Professor and Chief
Division of Cardiothoracic Surgery*

**Distinguished University Professor,
Chair Emeritus**
Fred A. Crawford, M.D.

**Distinguished University Professor
Emeritus**
Robert M. Sade, M.D.
John M. Kratz, M.D.

Professors of Surgery
Scott M. Bradley, M.D.
Minoo Kavarana, M.D.

Associate Professor of Surgery
Arman Kilic, M.D.

Assistant Professors of Surgery
Ian Bostock, M.D., MS
Kathryn Engelhardt, M.D.
Barry Gibney, D.O.
Nicolas Pope, M.D.
T. Konrad Rajab, M.D.
Lucas Witer, M.D.
Sanford Zeigler, M.D.

Instructor
Z.A. Hashmi, M.D.

The **Division of Colorectal Surgery** is nationally and internationally recognized for its pioneering efforts and extensive experience in minimally invasive surgery, including state-of-the-art laparoscopic and robotic procedures for colorectal cancer and inflammatory bowel disease (IBD). Our surgeons are double board certified, lending a unique depth and breadth of experience to a wide range of benign and malignant diseases of the lower gastrointestinal tract. The colorectal division has created a strong collaboration with MUSC healthcare providers in the Digestive Disease Center and are dedicated to the long-term care of patients with digestive disorders, including general gastrointestinal diseases and IBD.

COLORECTAL SURGEON COLLEEN DONAHUE, M.D. JOINS THE DIVISION; HELPS BRIDGE THE GAP IN GENDER-SPECIFIC DISPARITIES

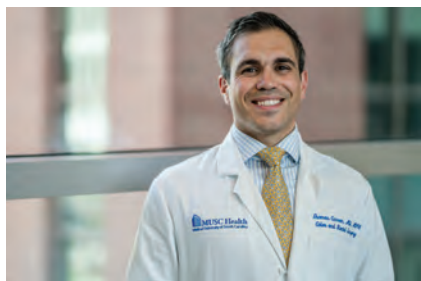
Colon cancer is the second leading cause of cancer-related deaths in the United States. Although the risk of the disease is similar in both men and women, the myth that colon cancer is primarily a male disease seems to persist. As a result, studies have found that women are less likely to undergo preventative screenings for colon cancer, presumably because women are less likely to discuss colorectal health generally, whether with their physician or their friends and family.



Colleen Donahue, M.D., who joined the division this past fall after completing her colorectal fellowship, is committed to health equity and sees her roles as a woman surgeon who treats all types of colorectal disease as part of the solution to addressing sex and gender-related specific disparities in colorectal disease.

Her clinical interests include benign conditions of the anus and rectum, rectal prolapse, diverticulitis, inflammatory bowel disease, and cancer of the colon and rectum, focusing on a multidisciplinary, team-based treatment approach.

SHRINKING THE GAP IN SURGICAL SAFETY OUTCOMES BENEFITS OLDER BLACK PATIENTS IN SOUTH CAROLINA



The South Carolina Surgical Quality Collaborative (SQC) was created in 2015 to level the playing field for surgical patients, and a recent study led by colorectal surgeon **Thomas Curran, M.D., MPH** shows that the effort is paying off for both black and white patients, decreasing complications for all patients and shrinking the racial gap in outcomes.

It is well known that not all health care lands equally across populations, but understanding why this happens and how to mend it is far from straightforward. Many complicated factors influence inequities in healthcare across different racial and socioeconomic groups. These factors have been studied extensively and include access to quality healthcare, education, social connections, healthy food, and housing. Disparities in everyday life can spill over into unequal outcomes after surgery as well. Dr. Curran and his team hypothesized that quality improvement initiatives may not impact everyone in the same way, and since racial disparities within a regional SQC have not been explored before, they wondered if such initiatives might help some people more than others. To find out, the team tapped into the wealth of data being collected by the South Carolina SQC.

They discovered that black patients across both older (65 years and up) and younger (less than 65 years) age groups had higher rates of complication than white patients, and this was true even when the researchers accounted for other known factors, such as other medical problems, poverty or diminished access to care. The reason for the difference is not known, but the good news for the researchers was that the overall complication risk decreased for all patients over the first five years of quality improvement efforts. And indeed, the reductions in risk were actually most pronounced for black patients, especially older black patients.

IMPROVED CARE FOR PATIENTS WITH BOWEL INCONTINENCE

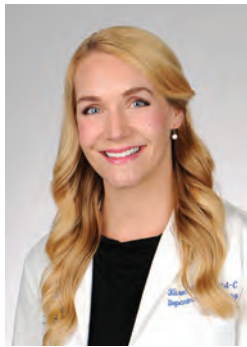


Nearly 18 million adults in the United States – about one in 12 – have fecal incontinence (FI). It is life-altering because many sufferers limit their lives socially, professionally, and personally. Fortunately, FI is treatable. Known as sacral neuromodulation (SNM), the therapy has been shown to improve FI by more than 70%, allowing patients to experience an improved quality of life. MUSC is one of the first medical centers in South Carolina to offer new SNM solutions to people who suffer from FI, thanks to colorectal surgeon **Pinckney J.**

Maxwell IV, M.D., an expert in performing SNM procedures, and technology advancements from Medtronic – the world’s leading provider of therapy for bladder and bowel control issues.

Dr. Maxwell and his team have performed over 100 implantations with excellent results. SNM therapy is allowing our patients to return to many activities they had been avoiding related to FI symptoms. The therapy is delivered by the InterStim™ system – a minimally-invasively implanted medical device that provides gentle stimulation to the sacral nerve and is thought to normalize the brain-bladder connection to alleviate symptoms. Medtronic’s InterStim™ II recharge-free system offers patients freedom from a recharging routine, the hassle of recharging components, and a reminder they have a disease. In contrast, the rechargeable InterStim™ Micro system, the smallest device available in the SNM market, benefits patients who want a smaller, longer lasting device. Effective long-term treatment for bowel control is an unmet medical need for many in South Carolina who experience regular accidents or leakage associated with FI. It can significantly impact all aspects of their quality of life. By partnering with Medtronic, the trusted leader in SNM therapy, Dr. Maxwell’s goal is to help give patients a life without limits.

COLORECTAL CANCER SURVIVORSHIP PROGRAM



Cancer survivorship is a distinct phase of cancer care after surgery or neoadjuvant treatment, focusing on surveillance for cancer recurrence, regular health and wellness assessments, late effects of treatments, second cancers, and quality of life. **Karen Anderson PA-C** established a survivorship clinic for patients diagnosed with colon and rectal cancers several years ago.

Her passion for caring for cancer patients started as an avenue to improve access to quality care and has evolved to include the newest technology of circulating tumor DNA (ctDNA). While this concept is well established in blood cancers, it is now being applied to solid tumors, allowing for earlier detection of cancer recurrence compared to traditional testing algorithms. Additional benefits include decreasing the anxiety many cancer patients experience between appointments and testing.



VIRGILIO GEORGE, M.D.

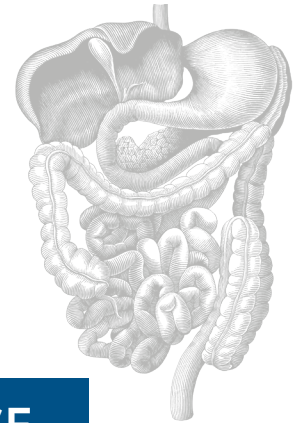
*Associate Professor and Chief
Division of Colorectal Surgery*

Associate Professor of Surgery

Pinckney J. Maxwell IV, M.D.

Assistant Professors of Surgery

Thomas Curran, M.D., MPH
Colleen Donahue, M.D.



AT A GLANCE

- **859** SURGICAL CASES
- **26%** INCREASE IN ROBOTIC SURGERY
- **1311** NEW PATIENTS
- **4465** OUTPATIENT ENCOUNTERS
- NATIONAL ACCREDITATION FOR TREATMENT OF RECTAL CANCER

The **Division of Foregut and Metabolic Surgery** is nationally and internationally recognized for its surgical expertise and multidisciplinary approach to caring for patients in need of weight loss surgery. Our bariatric surgeons care for patients suffering from severe obesity, often requiring highly complex weight loss procedures. We are nationally and internationally known for our innovative use of robotic surgery for severely obese patients, offering transformational surgeries that are changing the lives of patients with BMIs from 40 to the upper 90s.

INTERNATIONALLY-RECOGNIZED BARIATRIC SURGEON RANA PULLATT, M.D. NAMED DIVISION CHIEF

Rana Pullatt, M.D. is a Diplomate in Obesity Medicine and serves as the clinical director of Bariatric and Robotic Surgery. As the Chief of the newly-created Division of Foregut & Metabolic Surgery, Dr. Pullatt outlines his vision for the future of the Division of Foregut & Bariatric Surgery.

The Division of Foregut & Metabolic Surgery was created with the goal of bringing the best and most advanced treatment modalities for benign foregut disease and obesity-related disorders. The division shall accomplish this by collaboratively working with specialists across other divisions, including gastroenterology, thoracic surgery and general surgery.

Across the state and the region, there exist very few centers dedicated to tackling the entire spectrum of foregut disorders and obesity. Where they do exist, excellence often happens in silos separated by specialties.

The goal of the MUSC Division of Foregut & Metabolic Surgery is to work collaboratively within these silos of excellence, identify individual specialists, and serve as a comprehensive center for patients, where they can be treated with the most advanced and least invasive modality.

For patients with difficult cases, the division will lead multidisciplinary conferences where physicians across different specialties will discuss treatment modality and a collaborative plan for management can be established for the optimal outcome.

Bariatric surgery at MUSC Health is nationally and internationally recognized for its excellent clinical expertise - especially in the space of the superobese patient and re-operative bariatric surgery.

The division plans to recruit faculty to continue to be in the cutting edge of the Bariatric Surgery and Obesity Medicine space.



“Dr. Pullatt has earned the respect and admiration from both inside the walls of MUSC and beyond – for his internationally-renowned surgical expertise and care he provides to some of the most challenging high BMI patients in South Carolina – and for his collegial spirit and team-focused approach.”

-Prabhakar Baliga, M.D.
Chair, MUSC Department of Surgery

AT A GLANCE

- 18% INCREASE IN wRVUs
- 1000 SURGICAL CASES
- 152% INCREASE IN ROBOTIC CASES
- 1110 NEW PATIENTS
- ROBOTIC CENTER FOR EXCELLENCE IN BARIATRIC SURGERY

T. KARL BYRNE, M.D. HONORED SURGEON

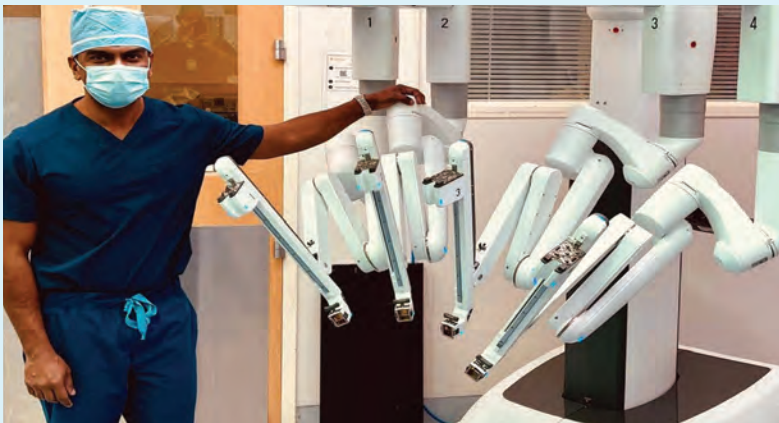


The 2022 Distinguished Faculty Service Award recipient, **T. Karl Byrne, M.D., B.Ch.** is a Professor of Surgery who has served patients, students, and trainees for three decades. He is an invaluable faculty colleague who embodies the values and excellence to which MUSC as an institution aspires. Dr. Byrne was trained in Ireland at the Royal College of Physicians and Surgeons and Princess Margaret Hospital in Wiltshire, England, but sought training at the Medical College of Virginia in 1989. After completing his second residency in the United States, he was recruited to MUSC as a general surgeon with particular skill and expertise in trauma.

Among Dr. Byrne's remarkable clinical strengths is his adaptability to change as technology has evolved, facilitating ever less invasive surgeries. Having arrived at MUSC as a trauma surgeon with a strong interest in bariatric surgery, he developed into a leader in this field. As a former colleague summarized, over his career, "general surgery was beginning to transition from standard open abdominal procedures into the much less invasive endoscopic procedures. More recently, he has moved from less invasive endoscopic procedures to truly minimally invasive surgery with the da Vinci Robot."

With each change, Dr. Byrne has become a sought-after expert, passing these skills to trainees. It is as a teacher and mentor that his strengths have been widely honored and acclaimed. His teaching spans the continuum from students through residents to continuing medical education. His awards in teaching at university, college, and departmental levels reflect this skill at teaching others, no matter their level. His core area of expertise and contribution has been to patients in need of bariatric surgery. While his surgical skill, adaptability, and attention to patients are the attributes that stand out, one additional attribute is notable within the grants he has earned and the many publications he has co-authored. This research is notable for its attention to the holistic needs of patients before and after surgery, his co-investigators interdisciplinary/interprofessional backgrounds, and the inclusion of residents and students among his coauthors. These observable elements of his career show him to be compassionate and collaborative while being innovative.

ROBOTIC CENTER OF EXCELLENCE



The Bariatric Surgery Center is a Robotic Center of Excellence and a certified center for observation for Robotic Bariatric Surgery. The Center has hosted surgeons from across the country and from all over the world.



RANA PULLATT, M.D.

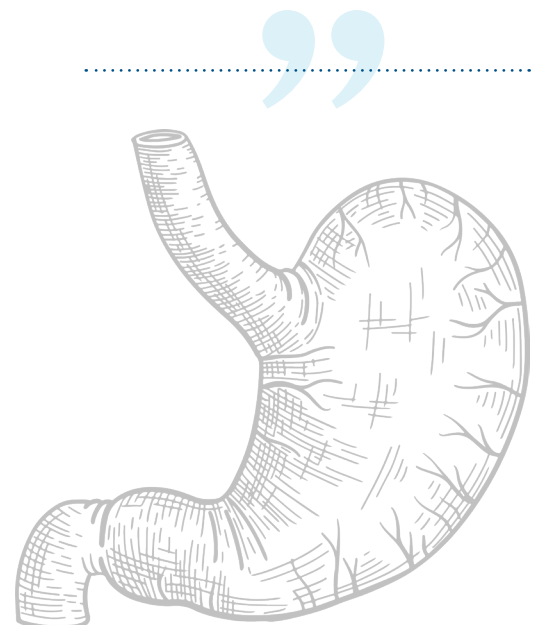
*Professor and Chief
Division of Foregut & Metabolic Surgery*

Professor of Surgery

T. Karl Byrne, M.D., B.Ch.

"Since his initial arrival to MUSC, Dr. Byrne has served as an exemplary teacher in the operating room and during rounds. He is admired by all who have the opportunity to work alongside him, and he is recognized nationally for his expertise and innovation in bariatric surgery."

-Prabhakar Baliga, M.D.
Chair, MUSC Department of Surgery



Surgeons in the **Division of General, Acute Care, Trauma and Burn Surgery** offer a full spectrum of highly specialized care using the least invasive procedures for both elective and emergent surgeries. This year, our General, Acute Care, and Burn Surgeries saw a dramatic rise in surgical volume for both burn and rib fracture care, and our violence intervention program profoundly affected our community during its inaugural year. As we continue to expand our clinical faculty, *Michael Mallah, M.D.* joins our trauma team in October and *Rohit Mittal, M.D.*, joins our burn team in December.

SC BURN CENTER RANKS HIGHEST PERFORMER IN THE U.S. FOR QUALITY AND SURVIVAL OUTCOMES



MUSC Department of Surgery Burn Team

A result of the collaborative efforts by an extraordinary team of multidisciplinary allied health providers, The [South Carolina Burn Center](#) was able to achieve the #1 spot as the highest performer in the U.S. for quality and survival outcomes for burn centers across the U.S. for 3 of 4 quarters in 2021. The remarkable performance data is derived from a national benchmarking database, which describes itself as “the country’s leading health care performance improvement company.”

Physical recovery is only one component of reintegration and getting back to a normal life after a burn injury. Our patients also benefit from a novel, individualized, evidence-based patient-centered approach to managing their emotional scars and psychological healing, led by *Yulia Gavrilova, Ph.D.*

“The South Carolina Burn Center’s Burn Behavioral Health Program, led by Dr. Yulia Gavrilova, is an invaluable resource for our community and the state, and is crucially important for a full recovery.”



-Steven Kahn, M.D.
Chief of Burn Surgery



NEW SURGEON



Mike M. Mallah, M.D. joins MUSC as an acute care surgeon after completing his trauma fellowship at Virginia Commonwealth University. During his medical and surgical training, Dr. Mallah also spent three years in international healthcare consulting at McKinsey & Company. In this role, he worked with the C-suite of multiple institutions and government Health Ministers to solve complex international healthcare problems.

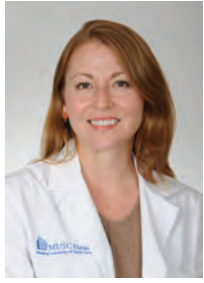
Dr. Mallah has a strong interest in global surgery and surgical education. He has operated on five continents and traveled to over 45 countries.

At MUSC, he will utilize his global health experience to develop and lead the new Global Surgery Program.

BY THE NUMBERS

- **1423** GENERAL & ACT SURGICAL CASES
- **95%** INCREASE IN ROBOTIC SURGERY
- **59%** INCREASE IN ELECTIVE SURGERY
- **300%** INCREASE IN RIB FIXATION CLINIC VISITS
- **\$1M** DOJ AWARD
- **60%** INCREASE IN ADULT BURN SURGICAL CASES

ASHLEY HINK, M.D., MPH RECEIVES PRESTIGIOUS DOJ AWARD; REPORTS ON TTVIP



Ashley Hink, M.D., MPH, and colleagues were awarded a Department of Justice Comprehensive Youth Violence Prevention and Reduction Program Grant to establish a violence prevention and intervention program for at-risk youth in community settings. The three-year grant award is for \$997,351. The DOJ grant funds an MUSC Health Turning the Tide Violence Intervention Program (TTVIP) client advocate position that focuses on supporting at risk adolescents and teens and serves as a liaison with Youth Advocate Programs, Inc., commonly referred to as YAP. Over 2/3 of the funds go directly to YAP to create a community-based violence intervention and interruption program serving the Charleston community.

This year, the TTVIP has made tremendous strides for our patients and their families who have experienced gun violence.

- Over 30 education and outreach sessions at MUSC Health, in the community and at conferences on firearm violence prevention, services and trauma-informed care
- Over 170 patients & 100s of family members supported by the TTVIP team
- Around 50 patients enrolled in long-term wrap-around services and support
- No cases of violent injury recidivism among enrollees

“We have been able to help victims and their families find paths that potentially will change their lives, prevent recidivism, and stop retaliation.”

-Ashley Hink, M.D., MPH

In addition to the DOJ award, Dr. Hink has received support from agencies and community partners, including a \$50,000 grant from Dominion Energy. If you'd like to join our efforts and support this program that is creating positive change in our community, please visit connect2.musc.edu/surgery and select “MUSC Violence Prevention Program.”

THE CHEST WALL INJURY AND RECONSTRUCTION CLINIC RECEIVES NATIONAL RECOGNITION

MUSC Health is a national leader in [rib fracture care](#) and in 2021 was recognized as a Chest Wall Injury Collaborative Center by the Chest Wall Injury Society. The Chest Wall Injury and Reconstruction Clinic, led by [Evert Eriksson, M.D.](#), treats patients suffering from acute and chronic rib pain, including slipped and non-healing ribs.

- The telehealth program in the rib clinic grew by over 300% in 2021 and has included patients from all over South Carolina.
- Evert Eriksson, M.D. has expertise in identifying Slipped Rib and Rib Tip syndromes. Patients from all over the U.S. have come to MUSC to have surgery for these syndromes.
- Surgery is not always the answer to chest wall injuries. We use innovative pain medication regimens, as well as physical, occupational, and ultrasonic therapy to help patients, as well as chronic pain management services.



BRUCE CROOKES, M.D.

*Professor and Chief
Division of General, Acute Care,
Trauma and Burn Surgery*

Professors of Surgery

Evert Eriksson, M.D.
Heather Evans, M.D., MS
Steven Kahn, M.D.
Stuart Leon, M.D.
E. Douglas Norcross, M.D.

Associate Professors of Surgery

Stephen Fann, M.D.
Alicia Privette, M.D.
Cynthia Talley, M.D.

Assistant Professors of Surgery

Marcie Dorlon, M.D.
Ashley Hink, M.D., MPH
Michael Mallah, M.D.
Deepak K. Ozathil, M.D.

Instructor

Yulia Gavrilova, Ph.D.



FACULTY RECOGNITION

Stephen Fann, M.D.

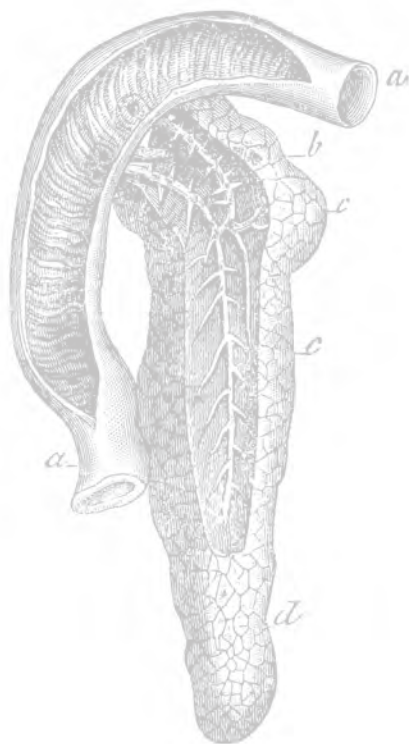
*Chief Resident Educator of the
Year Award*

The **Division of Hepato-Pancreato-Biliary (HPB) Surgery** serves as a center of excellence with a focus on advancing innovation in care for all conditions of the pancreas, liver, and biliary system. With telehealth and clinic expansion, MUSC Health serves as the region's premier tertiary and quaternary referral center for HPB surgery. HPB surgeons work with multidisciplinary teams at the Hollings Cancer Center to treat cancers of the liver, stomach, bile duct, and pancreas and are nationally-recognized experts in treating pancreatitis.

TARGETING TUMORS: NANOKNIFE ADVANCES PANCREATIC CANCER TREATMENT

According to the American Cancer Society, about 55,440 people will be diagnosed with pancreatic cancer this year, and fewer than one in five of these cancers are caught early enough to be surgically removed. Even when diagnosed early, pancreatic cancer typically spreads rapidly. Pancreatic cancer can be challenging from a treatment perspective, especially in later stages when cancer has spread to nearby organs and vital structures. Patients with these types of cancers may have limited treatment options.

This year, HPB surgeon **Katy Morgan, M.D.** began using NanoKnife technology to provide the chance to extend survival by removing a significant portion of hard-to-reach, diseased cells and preserving functional, critical nerves, blood vessels, and ducts. According to Dr. Morgan, this novel therapy that uses electrical currents to damage and destroy cancer cells offers late-stage pancreatic cancer patients a treatment option with survival that approaches resection.



ROBOTIC-ASSISTED LIVER SURGERY - LESS PAIN, ALL GAIN



William Lancaster, M.D.

Robotic liver surgery is an evolving specialty within liver surgery. It allows surgeons to perform advanced procedures with a potential for improved precision and ergonomics as well as a 3-dimensional view of the surgical site. At MUSC Health, **William Lancaster, M.D.** and his team have expanded the robotic surgery program to include all aspects of liver surgery.

Typically, complex liver surgery is performed as traditional open surgery, with a large incision that usually goes across the abdomen and tends to cause a long recovery time and has higher than average incidence of complications from the wounds themselves.

Now with robotic-assisted liver surgery, patients have less pain and fewer complications. The hospital stay is reduced from five days to, in some cases, just overnight, with the return to work from a three-month recovery to just a week. MUSC Health is the only center in the state to offer robotic-assisted liver surgery.

Last year, Dr. Lancaster was the first in the state to perform a robotic liver resection for the treatment of cancer.

HIGH VOLUME ISLET CELL TRANSPLANTATION PROGRAM TREATS CHRONIC PANCREATITIS



For patients with chronic pancreatitis, islet cell auto-transplantation in combination with complete pancreatectomy treats the intense pain that coincides with the condition but without the likelihood of developing diabetes that would occur with removal of the pancreas alone.

MUSC Health is one of 20 hospitals across the country that perform islet cell transplantation to treat chronic pancreatitis. The high-volume islet cell transplantation center is ranked the number 2 islet cell transplant program in the world by caseload.

In addition to the cutting-edge surgery, the team is also involved in leading-edge translational research in the Center for Cellular Therapy. **Hongjun Wang, Ph.D.**, a nationally-recognized expert in islet cell transplantation and co-scientific director of the CCT, works closely with **Katy Morgan, M.D.**, and **William Lancaster, M.D.** for patients in need of total pancreatectomy with islet autotransplantation.

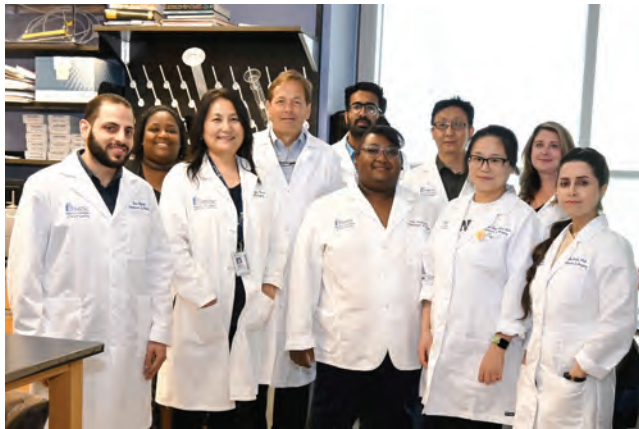
Dr. Wang and her research team are developing interventional procedures to improve islet yield quantity and quality to prevent the onset of surgical diabetes after total pancreatectomy in patients with chronic pancreatitis. In FY22, Dr. Wang and her team were awarded a \$3.2M grant by the NIDDK to enroll 42 chronic pancreatitis patients to assess the safety and efficacy of autologous bone marrow mesenchymal stromal cells and islet co-transplantation in total pancreatectomy with islet autotransplantation patients.



KATHERINE MORGAN, M.D.

*Professor and Chief
Division of HPB Surgery*

Assistant Professor of Surgery
William Lancaster, M.D.



Hongjun Wang, Ph.D. and Charlie Strange, M.D. with their research team, who are developing interventional procedures to improve islet yield quantity and quality to prevent onset of surgical diabetes after total pancreatectomy in patients with chronic pancreatitis. Front row: Ahmed Lotfy, Ph.D., Hongjun Wang, Ph.D., Erica Green, Ph.D., Wenyu Gou, Ph.D., Sara Shoeibi, Ph.D. Back row: Leah Benn, Charlie Strange, M.D., Pransanth Muralidharan, Hua Wei, Ph.D., and Susan Norton

AT A GLANCE

- **2577** OUTPATIENT ENCOUNTERS
- **246%** INCREASE IN HPB ROBOTIC SURGERY
- **#2** ISLET CELL TRANSPLANT PROGRAM IN THE WORLD
- NATIONAL PANCREAS CENTER OF EXCELLENCE
- **\$3.2M** NIH NIDDK FUNDING

The **Division of Oncologic and Endocrine Surgery** provides comprehensive surgical care for patients with benign and malignant breast diseases, endocrine tumors, melanoma and soft tissue tumors. Our surgeons are at the forefront of minimally invasive techniques for cancer surgeries that improve precision and reduce the surgical impact on patients, including the reduction of tissue damage and post-surgical pain while promoting a faster recovery. The division added four new highly specialized surgical faculty dedicated to improving patient care and outcomes for South Carolinians affected by cancer.



KEVIN HUGHES, M.D. LEADS HEREDITARY CANCER CLINIC

Kevin Hughes, M.D., Director of Cancer Genetics at MUSC Hollings Cancer Center and the Rose McKoy Jr. M.D. Endowed Chair in Surgical Oncology, believes strongly in using genetic testing to identify patients at high risk of cancer before cancer occurs. Hughes is an internationally recognized expert in genetic testing and the identification and management of patients with hereditary cancer risk. He leads the Hollings Hereditary Cancer Clinic, which is one of the first in the nation, designed to care more effectively for patients with genetic mutations. Hughes said the new Hereditary Cancer Clinic provides patients with a centralized location for ongoing care that offers them comprehensive

and effective management from a team of specialists, building on the existing expertise at the Hollings Cancer Center.

The Hereditary Cancer Clinic works closely with the Comprehensive Breast Program, led by **Andrea Abbott, M.D. MSCR**, South Carolina’s most advanced center for the diagnosis and treatment of breast disease.

“We have seen an increase in the number of patients receiving genetic testing, which has allowed us to identify more patients who carry genetic mutations. These patients are then seen and managed by Dr. Hughes and **Jen Diaz, NP** to ensure they are receiving their appropriate screening,” said **Andrea Abbott, M.D. MSCR**, Comprehensive Breast Program director. “The breast team has done a wonderful job identifying high-risk patients and our goal is to continue to expand genetic testing and access across all cancer types.”



JEFFREY SUTTON, M.D. LEADS THE EXPANSION OF THE HIPEC SURGERY PROGRAM

Some cancers can be difficult to treat with surgery, radiation, and traditional chemotherapy alone. Appendiceal, colorectal and gynecologic

cancers that have metastasized to the lining of the abdominal cavity can fall into this category. **Jeffrey M. Sutton, M.D., FSSO** is a fellowship-trained and board certified surgical oncologist with expertise in cytoreductive surgery and hyperthermic intraperitoneal chemotherapy, also known as CRS-HIPEC. This operative technique involves using heated chemotherapy inside the abdominal cavity to kill residual cancer cells in conjunction with surgery to remove the macroscopic disease, and is a treatment strategy for patients with peritoneal metastases from these various primary tumor sites. Dr. Sutton joined MUSC Health in 2021 to lead the expansion of the HIPEC as well as minimally invasive surgical approaches to GI and soft tissue malignancies. MUSC Health is one of the few locations in South Carolina to offer patients CRS-HIPEC. Dr. Sutton’s goal is to make HIPEC a standard surgery at MUSC and have it be one of the many options to offer patients with metastatic cancer.

AT A GLANCE

- **1359** SURGICAL CASES
- **26%** INCREASE IN wRVUs FOR ONCOLOGIC BREAST SURGERY
- **52%** INCREASE IN HIPEC SURGICAL CASES
- ONLY NCI DESIGNATED CANCER CENTER IN SC
- NATIONALLY ACCREDITED PROGRAM FOR BREAST CENTERS
- HIDDEN SCAR™ BREAST SURGERY

NEW FACULTY



Tara Grahovac, M.D. is a breast surgical oncologist and an expert in the medical treatment and surveillance programs for women with breast cancer and those at high risk for the disease. At MUSC Health and in collaboration with the Hollings Cancer Center, she joins the Breast Care & Surgery Program at Beaufort Memorial Hospital, where she will lead the surgical effort.

Through the affiliation, patients at Beaufort Memorial also have access to promising clinical trials and subspecialists experienced in treating rare or complex cancers. Located in Beaufort Memorial's nationally accredited Breast Health Center in Okatie, S.C., the program provides a full complement of screening and diagnostic services, as well as genetics testing and high risk assessment for early identification and surveillance of genetic cancers.

"We are thrilled to welcome Dr. Grahovac to the division of Surgical Oncology and are excited about the level of expertise and wealth of knowledge she brings to the Beaufort area. Dr. Grahovac is a fellowship-trained breast surgeon who has years of experience building and running a comprehensive community breast program. She brings not only academic excellence, but also the warmth, compassion, and drive needed to care for breast cancer patients."

Andrea Abbott, M.D., MSCR

Program Director, Hollings Cancer Center Comprehensive Breast Program

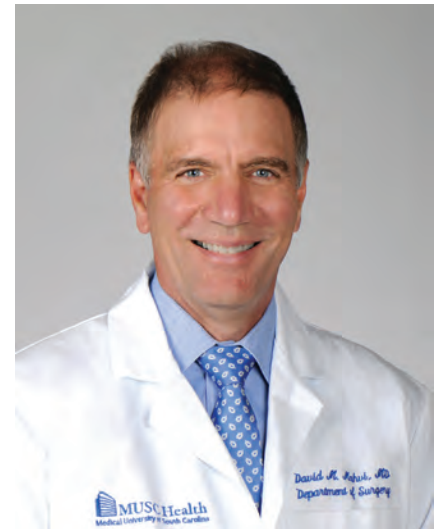


Bernice Huang, M.D. joins the MUSC Department of Surgery as an Assistant Professor of Surgery. Dr. Huang is an endocrine surgeon who will work in close collaboration with the Hollings Cancer Center, bringing innovative techniques and procedures to endocrine patients in South Carolina. Dr. Huang completed her endocrine surgery fellowship at The University of Texas MD Anderson Cancer Center and general surgery residency at Columbia University, where she also dedicated a year to clinical research in endocrine surgery.

Dr. Huang has expertise in the posterior retroperitoneoscopic approach for adrenal surgery that accesses the adrenal gland through the back, simplifying the laparoscopic procedure and minimizing postoperative pain. She also has clinical and research interests in the care and surgical management of patients with renal hyperparathyroidism. She intends to focus her research on improving clinical outcomes and addressing disparities in care for these patients.

"We are excited to welcome Dr. Huang to our Endocrine Tumor Clinic at HCC and our Endocrine Surgery Service."

Denise Carneiro-Pla, M.D.
Professor of Surgery



DAVID MAHVI, M.D.

*Professor and Chief
Division of Oncologic & Endocrine
Surgery*

Professors of Surgery

President David J. Cole, M.D.
Denise Carneiro-Pla, M.D.
Nancy Klauber-DeMore, M.D.
Kevin Hughes, M.D.
Mark Lockett, M.D.

Associate Professors of Surgery

Andrea Abbott, M.D. MSCR
Rochelle Ringer, M.D.

Assistant Professors of Surgery

Bernice Huang, M.D.
Tara Grahovac, M.D.
Jeffrey Sutton, M.D.

Adjunct Professor

Jon van Heerden, M.D.



At the MUSC Shawn Jenkins Children’s Hospital, one of the most technologically advanced children’s hospitals in the country, our nationally-recognized pediatric surgeons in the **Division of Pediatric Surgery** collaborate with best-in-class experts in pediatric anesthesia, emergency medicine, ICU, and other pediatric sub-specialists to provide high quality family-focused care for complex pediatric surgical conditions.

BURN CENTER PLANS COLLABORATION WITH SHRINERS CHILDREN’S HOSPITALS

The South Carolina Burn Center at MUSC is planning a collaboration with Shriners Children’s Hospitals, effective FY23. The Shriners Hospitals have an international reputation for providing the highest quality burn care to pediatric patients. The Pediatric Burn Team at MUSC Shawn Jenkins Children’s Hospital is excited to partner with the Shriners Children’s Hospitals to bring expert comprehensive burn care to the children in this county and beyond. They look forward to utilizing cross-pollination of ideas and care paradigms as a springboard to support our growth and the care of pediatric burn patients across the state of South Carolina.

“With the Shriners Children’s Hospitals support, we will further build on our foundation of clinical excellence, bringing innovation not only to the surgical care of burn injuries, but also to the global needs of the patient in rehabilitation, social, and psychological aspects of care that are so important to treating burn-injured patients. Further, our partnership will serve to greatly improve access to expert pediatric burn care to these vulnerable patients and their families.”

- Aaron Lesher, M.D., MSCR,
Pediatric Burn Surgeon



H. Biemann Othersen Jr, MD Pediatric Operating Suite

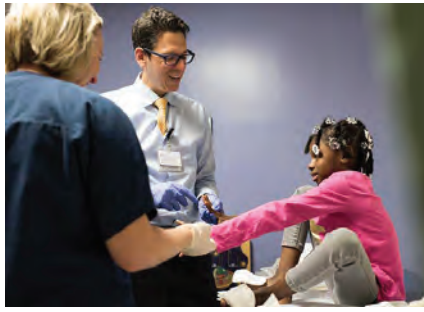
OPERATING SUITE DEDICATED TO H. BIEMANN OTHERSEN, JR., M.D.

For more than fifty years, H. Biemann Othersen Jr., M.D. has been recognized as one of the most respected and loved physicians in South Carolina. A native of Charleston, Dr. Othersen joined the Medical University of South Carolina faculty in 1965 to serve as an assistant professor of surgery and as the university’s first chief of pediatric surgery. At the time, he was the first pediatric surgeon in South Carolina and one of the first in the entire Southeast. Now fully retired from academic medicine, the nonagenarian continues to serve as Chairman of the *Curtis P. Artz MUSC Surgical Society* and hosts weekly education sessions to discuss journal articles with residents on their pediatric surgery rotation. In recognition of his many contributions to Pediatric Surgery and the countless young patients he has cared for, the MUSC Shawn Jenkins Children’s Hospital dedicated an operating suite in his honor.



The division of Pediatric Surgery celebrated with Dr. Othersen during a reception in his honor.

ACS LEVEL 1 CHILDREN'S SURGERY VERIFICATION QUALITY IMPROVEMENT PROGRAM



Robert Cina, M.D., director of Pediatric Surgical Quality, is dedicated to ensuring patients and their families have the highest confidence in the quality of surgical care they receive at MUSC Children's Health. This year, under Dr. Cina's leadership, the MUSC Shawn Jenkins Children's Hospital was awarded Level I Children's Surgery Verification from the ACS SCV Quality Improvement Program. The

MUSC Children's Hospital is now one of three Children's Hospitals in the Southeast to be recognized with this honor, and one of forty nationwide.

"The surgical quality verification from the ACS gives patients and their families an added level of assurance about our surgical quality and commitment to providing comprehensive and safe pediatric surgical care."

-Robert Cina, M.D.
Director, Pediatric Surgical Quality

NOVEL CHEST WALL RECONSTRUCTION SURGERY

Christian Streck, M.D., an expert on congenital chest wall deformities, was instrumental in acquiring a groundbreaking cryoablation technique to provide children undergoing pectus excavatum surgery – a complex surgery to fix a congenital abnormality where the front of the chest is caved in. The cryoablation technique freezes select thoracic nerves during the surgery-numbing the operative area for up to three months during recovery. In addition to reducing post-operative pain, cryoablation eliminates the need for an epidural for post-surgery pain management, reducing hospital stays. With less pain and shorter hospital stays, patients can quickly get back to their normal active lives, highlighted in this [MUSC Pectus Excavatum video](#).

AT A GLANCE

- 1412 SURGICAL CASES
- 3949 OUTPATIENT ENCOUNTERS
- #1 CHILDREN'S HOSPITAL IN SOUTH CAROLINA
- ACS LEVEL 1 CHILDREN'S SURGERY VERIFICATION
- ONLY ACS VERIFIED PEDIATRIC LEVEL 1 TRAUMA CENTER IN SOUTH CAROLINA
- NATIONALLY ACCREDITED PROGRAM TO PERFORM WEIGHT LOSS SURGERY ON ADOLESCENTS



CHRISTIAN STRECK, M.D.

Professor and Chief
Division of Pediatric Surgery

Professor Emeritus

H. Biemann Othersen, Jr., M.D.

Professor of Surgery

Robert Cina, M.D.

Associate Professor of Surgery

Aaron Leshner, M.D., MSCR

Assistant Professors of Surgery

Laura Hollinger, M.D.

Lucas McDuffie, M.D.



FACULTY RECOGNITION

Christian Streck, M.D.

Chair, the American Pediatric Surgical Association Trauma Committee

Robert Cina, M.D.

Chair, the Medical Executive Committee for MUSC Health Charleston

The **Division of Plastic, Reconstructive and Hand Surgery** offers the full spectrum of plastic surgery including hand surgery, reconstructive surgery, pediatric plastic surgery, lymphedema, breast reconstruction, and microsurgery as well as cosmetic surgery and aesthetic services. Our board certified, fellowship-trained surgeons combine deep expertise with the latest techniques to provide exceptional care. The division continues to grow in surgical expertise with the addition of highly specialized plastic and reconstructive surgeon **Gabriel Klein, M.D., MSCR**, who completed a Microvascular Reconstruction Fellowship at the Cleveland Clinic.

CELEBRATING OUR GRADUATES



Kiandra B. Scott, M.D. attended the Medical University of South Carolina’s College of Medicine and was MUSC Plastic Surgery Integrated Residency program’s first resident. Dr. Scott said being the first resident to spearhead a program was exciting and intimidating.

She is grateful to her program director, Dr. M. Lance Tavana, for his frequent and constructive feedback and advocacy that allowed her to shape the program for future residents. While she is grateful for the guidance from her program director, the program as a whole has thrived under Dr. Armstrong’s leadership and she is forever privileged to have trained under him. During her training, she presented research at various plastic surgery meetings and has published textbook chapters and manuscripts. In 2021, Dr. Scott’s research was selected for

the Resident Glancy Competition at the Southeastern Society of Plastic and Reconstructive Surgeons annual meeting. As the first graduate of the Plastic Surgery Integrated Residency Program, Dr. Scott was awarded the Trailblazer Award from Milton B. Armstrong, M.D., division chief, during the Department of Surgery Awards Ceremony.

A trailblazer in more ways than one – Dr. Scott is dedicated to healthcare and her community. She has mentored and tutored many BIPOC (Black, Indigenous, and people of color) students from high school to medical school in hopes to help those students excel in their dreams. During residency, she sat on the board of diversity for residents to help highlight diversity inclusion and awareness at MUSC. Dr. Scott is a plastic surgeon with a focus on breast reconstruction and breast aesthetics at a private hospital in Columbia, South Carolina.

“Being the first resident to spearhead the program was exciting. I was very fortunate to have Dr. Tavana as my program director. He listened, advocated, and provided frequent and constructive feedback and allowed me to help shape the program for the residents to follow. I have faith that our program is and will continue to be a gem to any trainee in the future.”

.....” -Kiandra Scott, M.D.



Georgina Nichols, M.D. also known as Georgina Alizo Arruebarrena, was born in Caracas, Venezuela. Dr. Nichols completed her university studies at the Université Libre de Bruxelles, where she received a bachelor’s degree in Medical Sciences followed by her

medical degree. She then had the opportunity to do rotations in plastic surgery in Trondheim, Norway, as well as Porlamar, Venezuela. She completed her General Surgery Residency at Grand Strand Medical Center before entering the MUSC Plastic Surgery Fellowship.

training. Dr. Nichols is also grateful for the training she received during her fellowship both in the clinic and through academic research supported by the division. This year, she presented at three major Plastic and Reconstructive surgery meetings – two national and one regional, where her research was selected for the Resident Glancy Competition.

The next step for Dr. Nichols is a year-long fellowship in Aesthetic Plastic Surgery with a final plan of settling in South Florida to serve the Hispanic population.

“I appreciate the support and mentorship Dr. Herrera provides to the residents interested in developing a strong research portion of our training. Incorporating this scientific inquiry into my practice helps me take better care of my patients.”

.....” -Georgina Nichols, M.D.

NEW SURGEONS



Gabriel Klein, M.D., MSCR is a plastic surgeon with extensive training in microvascular reconstruction. Dr. Klein joined the Division of Plastic and Reconstructive Surgery as an assistant professor of surgery after completing a Reconstructive Microsurgery Fellowship at the Cleveland Clinic, where he had the opportunity to train under Wei F. Chen, M.D., an internationally-renowned plastic surgeon who specializes in supermicrosurgery and treatment of lymphedema. Dr. Klein's practice will focus on restoring form and function to patients who have been affected by cancer, trauma, and chronic wounds. His interests include general reconstructive and cosmetic plastic surgery, free tissue transfer, limb salvage, lymphedema, and breast reconstruction - including DIEP flap and implant-based reconstructions.



Isis Scomacao, M.D. joined the team with expertise in novel surgical techniques to treat patients suffering from advanced lymphatic disease. Dr. Scomacao completed a series of fellowships in microsurgery and supermicrosurgery at the Cleveland Clinic. Dr. Scomacao offers both lymphovenous bypass and lymph node transfer surgical procedures. Working with a multidisciplinary team at the Hollings Cancer Center, she also performs microsurgical lymphedema prevention surgery. These novel surgical treatments are an effective management tool to reduce the symptoms of lymphedema, allowing patients to resume a more normal and active life. MUSC Health is one of a handful of surgical centers across the U.S. offering this novel therapy.



MILTON ARMSTRONG, M.D.
*Professor and Chief
 Division of Plastic, Reconstructive and
 Hand Surgery*

Professor of Surgery
 Fernando Herrera, M.D.

Associate Professors of Surgery
 Kevin Delaney, M.D.
 M. Lance Tavana, M.D.

Assistant Professors of Surgery
 Gabriel Klein, M.D., MSCR
 Isis Scomacao, M.D.

FACULTY MENTORSHIP IN RESEARCH



K. Delaney



F. Herrera



M. Tavana

Our faculty are dedicated to mentoring our students and trainees. Each year, residents in both training programs present at national and regional meetings. This year, the division had a record number of presentations accepted at regional and national meetings.

- ASPS October 2021: 1 student poster, 3 student oral presentations, 1 resident poster, 5 resident oral presentations, 1 faculty moderator (Dr. Armstrong), 1 faculty panelist (Dr. Herrera)
- AAHS, ASPN, ASRM January 2022: 5 posters, 2 faculty panel moderators (Dr. Armstrong, Dr. Herrera)
- ACAPS February 2022: 1 faculty panel moderator (Dr. Herrera)
- AAPS April 2022: 1 poster, 1 faculty panel moderator (Dr. Armstrong)
- ASAPS April 2022: 1 resident oral presentation
- SESPRS June 2022: 2 student posters and 2 student oral presentations, 1 resident poster and 1 resident oral presentation in the Resident Glancy Competition

AT A GLANCE

- **3923** OUTPATIENT ENCOUNTERS
- **25% INCREASE** IN wRVUs FOR COSMETIC PROCEDURES
- **9% INCREASE** HAND SURGERY CASES
- **FUNDED RESEARCH FELLOWSHIP**

Surgeons in the **Division of Transplant Surgery** are nationally recognized leaders in transplantation, working side-by-side with nephrologists, hepatologists, immunologists, interventionalists, pathologists, and radiologists to provide the most comprehensive patient care in the region. As we continue to expand our services across the state, providing greater access to our specialized care, we added four new team members in FY22 to help meet our patients' needs.

NEW FACULTY



Tracy Rice, M.D.
Assistant Professor

Tracy Rice, M.D. is the medical director for the Living Donor Transplant Program. Dr. Rice brings to MUSC Health an expertise in robotic donor nephrectomy and experience in normothermic deceased donor liver machine perfusion, adding a unique skill set to an already high-performing transplant team. Regarding the need for representation for women in transplant surgery, Dr. Rice believes her presence as a transplant surgeon will provide a better level of comfort to female patients.

“Women are underrepresented in the field of transplant surgery, and we are excited to have recruited such a well-trained individual as Dr. Rice from a field of nearly 50 applicants.”

Derek DuBay, M.D. MSPH



Joseph Scalea, M.D.
Professor & Vice Chair of Innovation

Joseph Scalea, M.D. is a professor of surgery and immunology and thought leader in transplantation. Surgically, Dr. Scalea built the largest pancreas transplant program in the country. He is the medical director of the kidney transplant program at MUSC. Dr. Scalea is an innovator and entrepreneur dedicated to saving lives. Within transplantation, Dr. Scalea and his quality teams are working to help centers scale operative volumes without sacrificing quality by leveraging technology to enhance the peri-transplant workflow. He is Vice Chair of Innovation, where he helps faculty members understand the commercial potential of surgical innovations and is Executive Medical Director for MUSC Health Solutions, an organization that assesses and commercializes internal technologies as well as early-stage external technologies. Beyond clinical care and commercialization, Dr. Scalea is an NIH-funded researcher and has published more than 80 peer-reviewed articles. In addition to studying organ logistics, Dr. Scalea is interested in eliminating the need for anti-rejection drugs in transplant patients using novel fusion proteins, which leverage the suppressive capacity of myeloid-derived suppressor cells in order to establish immune tolerance and to promote the long-term survival of transplants.

STATEWIDE EXPANSION PROVIDES BETTER ACCESS TO CARE

MUSC Health Lancaster received UNOS approval to initiate a kidney transplant program led by Medical Director Prince Mohan Anand, M.D. while MUSC fellowship-trained transplant surgeons **Ahmad Alqassieh, M.D.** and **Monther Altiti, M.D.** are the primary kidney transplant surgeons. The program is making an immediate impact with the goal to

both offer renal failure patients a transplant option closer to their home and to provide these patients the option of being dual listed at both Lancaster and Charleston, thus increasing the likelihood of being allocated a donor organ. The program has waitlisted over 80 recipients and already performed the first kidney transplant on July 2, 2022.

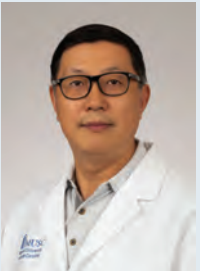
GROWTH OFFERS HOPE TO SOUTH CAROLINIANS IN NEED OF TRANSPLANTATION

With over a quarter of a century of transplant care, the Transplant Program national rankings for 2021 showcases MUSC Health as one of the highest volume programs in the country. MUSC Transplant Program is the 10th largest solid organ transplant program, inclusive of heart, lung, liver, kidney and pancreas transplants.



Dirk van der Windt, M.D., MSc, Ph.D.
Assistant Professor

Dirk van der Windt, M.D., MSc, Ph.D. joins MUSC upon completing his fellowship in Abdominal Transplant and Hepatobiliary Surgery at The University of Michigan. Dr. van der Windt's clinical interests are in liver, kidney and pancreas transplantation in the adult and pediatric populations, hepatobiliary surgery for benign and malignant conditions, general surgery in the transplant population, and dialysis access surgery. Dr van der Windt believes organ transplantation is the most meaningful area of medicine to work in as it provides a true cure for end-stage organ disease. In addition, the shortage of donor organs will always fuel creativity and innovative research to investigate new ways to increase the number of available organs and the use of alternative organ sources, such as living donation and xenotransplantation.



Yuan Zhai, M.D., Ph.D.
Professor

Yuan Zhai, M.D., Ph.D. is a well-funded, nationally-renowned basic science researcher in organ transplantation who aspires to help patients minimize the use of immunosuppressive drugs by therapeutically establishing and enhancing their transplant-specific immune regulatory functions or tolerance. Dr. Zhai leads the Lee Patterson Allen Transplant Immunobiology Laboratory, dedicated to the study of novel investigations in transplant research. Dr. Zhai's research endeavors include collaborations with clinicians to test novel molecules and pathways derived from animal studies as markers of tissue injury and inflammation, with the goal to translate research into clinical application. He will work in concert with Dr. Scalea and Dr. van Der Windt to amplify transplant immunobiology research.

DAVID TABER, PHARM.D, MS HONORED BY THE AST



The American Society of Transplantation honored **David Taber, PharmD, MS** with the Distinguished Senior Career Award, recognizing him for his significant contributions to the field of transplantation, specifically elevating the level of the practice of the pharmacist.



DEREK DUBAY, M.D., MSPH
Professor and Chief
Division of Transplant Surgery

Professors of Surgery

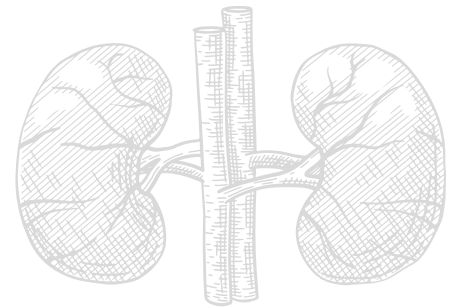
Chair Prabhakar Baliga, M.D.
John McGillicuddy, M.D.
Joseph Scalea, M.D.
Yuan Zhai, M.D., Ph.D. - Research
David Taber, PharmD, MS - Research

Associate Professors of Surgery

Angello Lin, M.D.
Jared White, M.D.

Assistant Professors of Surgery

Ahmad Alqassieh, M.D.
Tracy Rice, M.D.
Dirk van der Windt, M.D., MSc, Ph.D.



AT A GLANCE

- **#4** LARGEST VOLUME CENTER FOR KIDNEY TRANSPLANTS
- **#1** CENTER FOR DECEASED-DONOR KIDNEY TRANSPLANTS BY VOLUME
- **#2** LARGEST VOLUME CENTER FOR ADDING PATIENTS TO THE KIDNEY TRANSPLANT LIST
- **425** KIDNEY TRANSPLANTS

The **Division of Vascular Surgery** provides advanced vascular care encompassing the full range of medical optimization, open surgery and the latest endovascular techniques. This year, our team grew to include **Gabor Winkler, M.D.**, who will be based in the MUSC Health Columbia Medical Center, further expanding our vascular surgery clinics. Last year, **Matthew Gibson, M.D.** joined the division and is based in Georgetown. With clinics in Georgetown, Beaufort and now Columbia, more patients living outside of the greater Charleston area have better access to highly-specialized vascular surgeons.

MUSC DOCTORS FIRST AT ACADEMIC MEDICAL CENTER TO PERFORM ‘GAME-CHANGING’ NEW HEART FAILURE DEVICE PROCEDURE

Jean Marie Ruddy, M.D. and electrophysiologist **Anne Kroman, D.O., Ph.D.** are the first at an academic medical center and just second in the world to employ a new, minimally invasive procedure to implant a heart failure therapy device. Dr. Ruddy is the lead investigator at the MUSC site for the testing of this innovative implantation procedure. Dr. Kroman is the site co-principal investigator for the BATwire percutaneous implant research employing the Barostim Neo System. The device stimulates the nerve that regulates blood pressure with electrical impulses, causing the arteries to relax, improving the patient’s quality of life.



The BATwire Team

NEW TREATMENT OPTIONS FOR PATIENTS WITH SEVERE ARTERIAL DISEASE



Mathew Wooster, M.D., is the Principal Investigator on the high impact, investigator-initiated Shockwave clinical trial that explores the utilization of a balloon to treat patients whose iliac arteries have calcified occlusive disease that would otherwise prevent minimally invasive procedures. This year, Dr. Wooster and his colleagues have screened 15 patients

and completed eight procedures with excellent outcomes. In addition, Dr. Wooster is in the process of finalizing IRB approval to bring an international below-the-knee trial to MUSC using a smaller version of the same device for the treatment of calcified peripheral lesions, including some of the most challenging patients with critical limb ischemia. Both trials aim to improve standard of care for patients who have historically been excluded from most endovascular treatment trials.



The multidisciplinary team that performed the first Triomphe case.

BRIDGING THE GAP FOR PATIENTS IN NEED OF TOTAL AORTIC ARCH REPAIR

While minimally invasive endovascular repair has been the standard of care for abdominal aortic aneurysm, Aortic Arch Disease patients with aneurysms or dissections have not been as fortunate and have had little choice but to undergo open-chest surgery with its invasiveness and risks, lengthy hospitalization periods, and prolonged recuperation. Providing an alternative of minimally invasive repair decreases the requirement for extra corporal circulation and possibility of hypothermia, translating into reduced procedure and hospitalization time.

MUSC Health is one of the first 10 centers around the country involved in a clinical trial using the NEXUS™ Aortic Arch Stent Graft System to ensure that patients who may benefit from it have access to improved care and better outcomes. **Ravi Veeraswamy, M.D.** and cardiothoracic surgeon **Sanford Zeigler, M.D.** are the Co-PIs. **Mathew Wooster, M.D.** was the lead surgeon on the first case.

LIMB SALVAGE PROGRAM AT THE LEADING EDGE OF HARNESSING THE POWER OF BIG DATA



South Carolina has one of the nation's highest rates of lower extremity amputation from Peripheral Artery Disease (PAD). Unfortunately, many underserved communities in South Carolina are not adequately screened for PAD, leading to alarming rates of limb loss. To make sweeping changes to better identify patients with PAD in South Carolina, **Elizabeth Genovese, M.D. MS** has collaborated with Medtronic to develop a model to allow for early detection of patients at high risk for PAD. This robust model allows for separate screening

criteria for men and women, as women often present with unique clinical symptoms compared to men. This new screening model will be integrated into MUSC's current electronic medical record, seamlessly integrating into current patient care paradigms for primary care, family medicine physicians, and midlevel providers. Patients who screen positive will then be fast tracked into the MUSC Limb Preservation Program.



In addition to implementing this innovative screening program within the current electronic medical record, Dr. Genovese is teaming up with **Sharee Wright, M.D.**, vice chair of DEI, to develop a community outreach program for those without direct access to MUSC primary care facilities or resources. When fully implemented, the new model and outreach program will increase limb salvage access to care and improve patient outcomes for some of the most underserved populations in South Carolina.

NEW ENDOVASCULAR ORGANIZER SOLUTION



Adam Tanious, M.D. MSc served as a mentor to a team of medical students and a Citadel business student, hoping to address the problem vascular surgeons often face: the organization of wires, catheters, and sheaths on the back table for endovascular procedures.

The HCD team helped redesign and improve upon an idea Dr. Tanious brought with him from his prior institutions that helps achieve safe and efficient endovascular care by improving the organization and communication in the OR. The Endovascular Organizer won the HCD Final Pitch competition and the MUSC Shark Tank Student Pitch Completion. The team has filed a provisional patent and is currently beta testing the product.

SURGICAL INNOVATION IN THE HARVEY AND MARCIA SCHILLER INNOVATION CENTER

Thomas E. Brothers, M.D.
is using ML/AI to develop more predictive models for peripheral arterial disease.

Ravi Veeraswamy, M.D.
is using an AI pipeline to develop more sophisticated ways of treating carotid stenosis



RAVI VEERASWAMY, M.D.

*Professor and Chief
Division of Vascular Surgery*

Professor of Surgery

Thomas E. Brothers, M.D.

Associate Professors of Surgery

Jean Marie Ruddy, M.D.

Mathew Wooster, M.D.

A. Sharee Wright, M.D.

Assistant Professors of Surgery

Elizabeth Genovese, M.D., MS

Matthew Gibson, M.D.

Adam Tanious, M.D., MSc

Gabor Winkler, M.D.

AT A GLANCE

- **1237** SURGICAL CASES
- **8787** OUTPATIENT ENCOUNTERS
- **4** CLINIC LOCATIONS ACROSS SOUTH CAROLINA
- **18%** INCREASE IN wRVUs
- SVS VQI - 3 STAR RATING
- HIGH PERFORMING HOSPITAL FOR AORTIC ANEURYSM REPAIR

PLANNED GIFT FUELS THE ROSEANN RICHARDS-HINES EDUCATION AND RESEARCH FUND



Bob and Kathy Richards with Kellen Bob Richards, age 2, Avery Richards, age 12, and Julia Richards, age 14.

In May 2012, **Bob Richards** was heading down the path of needing a kidney due to polycystic kidney disease, an inherited condition that eventually leads to organ failure. Bob reached out to family and friends, sharing his need for a living donor. Ten people responded, and one was a perfect match – his niece, Roseann Richards-Hines. Less than a year later, he was the fortunate recipient of a living donor kidney from Roseann.

Since that day, he has not stopped demonstrating his gratitude towards his niece and MUSC. Among his many expressions of appreciation, shortly after Bob's kidney transplant, he and his wife, Kathy, initiated "The Roseann Richards-Hines Education and Research Fund" in Transplant Surgery with a generous monetary pledge to honor Roseann.

The couple has been steadfastly committed to supporting the MUSC Living Donor Program through annual contributions to the fund – creating

educational opportunities to help living donors and recipients and supporting leading-edge organ transplant research at MUSC. Ten years later, Bob and Kathy continue to give back to MUSC. This year was Bob's most significant gift ever. As part of a planned gift, Bob decided to contribute from his IRA's Required Minimum Distribution (RMD) to the MUSC Foundation to continue to support the MUSC Living Donor Program.

"Now that I turned 72 and have to take a required minimum distribution, I had a conversation with Vera Ford, Director of Development in the Department of Surgery," said Bob.

"She guided me towards making a planned gift, using a Qualified Charitable Distribution from my IRA, which satisfies my required minimum distribution without increasing my taxes. It is a great tax-smart way to make an impact with something I'm passionate about – the MUSC Living Donor Program."

Bob set up a distribution of \$50,000 per year over the next five years, with plans to repeat the same distribution for the next five years, with the goal to donate \$500,000 over ten years.

"My wife and I have always had giving spirits, and after my transplant, we knew we wanted to support MUSC's Living Donor Program. We have seen first-hand the impact of this fund, and that's a very gratifying way to honor my niece and support MUSC's efforts," he said.

Making a Gift from Your Will or Trust A Simple Way to Create a Lasting Legacy

Over the years MUSC has known tremendous benefit from those who executed charitable gifts from their will or trust. Whether you're creating a will or trust or revising an existing one, making a gift from your will or trust is easy and simple.

You can gift a percentage (%) of your estate or designate gifts of cash, securities, retirement assets or property. You can also name MUSC as a beneficiary of a life insurance policy, IRA/401(K)/pension fund or retirement account. In general, there is an unlimited deduction of charitable gifts against the value of an estate, making it a powerful tool for reducing tax consequences.

Making a Gift from Your IRA A Simple Way to Make a Lasting Impact Now

If you have an IRA and are 70 1/2 or older, you may donate tax-free from your IRA for direct support to MUSC. The IRA Qualified Charitable Distribution (QCD) allows individuals 70 1/2 and older to transfer up to \$100,000 annually from an IRA directly to MUSC. You pay no taxes on the transfer and your gift will make a meaningful impact upon the MUSC community.

To learn more about the benefits of planned giving, please contact Dana R. Taylor with the MUSC Office of Planned Giving at tayldana@musc.edu or 843.792.3592.

Please consult with your legal or tax advisor.

The **Marion C. Anderson M.D. Lecture** was founded in 2016 when Dr. Anderson's two daughters, Laurie and Julie Anderson, created a fund to support an annual named lecture to honor their father's passion for pancreatic-related disease and continuing medical education. The purpose of the lecture is to provide an educational forum on advances in care and research in pancreatic surgery.

Marion C. Anderson, M.D., a well-known pancreatic surgical leader, served as chairman of the Department of Surgery from 1978 - 88. At MUSC, Dr. Anderson was a widely sought-after surgeon by patients with pancreatic-related disease and a visionary for medical and continuing medical education.

"With thoughtful consideration on what we believe our mother, Sonia Anderson, would have wanted our father's legacy to be, Laurie and I decided to keep dad's passion alive through creating the named lecture," said Julie. "The Marion C. Anderson, M.D. Lecture perpetuates dad's deep commitment to educating and mentoring the next generation of surgical leaders."

Dr. Anderson's contribution to the field of Gastrointestinal Surgery is notable. He founded the Pancreas Club in 1966, which has evolved into an international organization where members have the opportunity to share the best in basic and clinical research in an international forum of peers.

While both women have contributed to the Department of Surgery for many years, with initial gifts going to the Marion Anderson CME Award, both sisters recently decided to make planned gifts to ensure that the Marion C. Anderson M.D. Lecture continued for years to come.

"When we attended the inaugural lecture and met with the invited speaker Dr. William Traverso, and MUSC pancreatic surgeons David Adams, M.D. and Katy Morgan, M.D., we were able to see the impact of the lecture," said Laurie. "Named lectures are key to providing an opportunity for faculty and trainees to learn from a distinguished surgical leader, share their research, and build connections with thought-leaders in their respective field, and seeing this first-hand deepened our commitment."

The two sisters strongly believe supporting this fund through planned giving will continue to educate faculty and residents on advances in Pancreatic Surgery for many years, bringing world-class leaders to MUSC and hopefully inspiring residents to enter the field of HPB Surgery.

Laurie chose to make a planned legacy gift through her will. And Julie has given a planned gift from her retirement portfolio. "One thing I learned from my father is to live a life of purpose," said Julie, who spent her legal career in the Georgia Attorney General's Office. "And, for me, that means part of living a purposeful life is to give back and honor his legacy at MUSC."

DAUGHTERS' PLANNED GIFTS HONOR THE LEGACY OF A GIANT IN THE FIELD OF PANCREATIC SURGERY



Vera Ford, Director of Development, had an opportunity to connect with Laurie and Julie Anderson, during their visit. Vera's stewardship helped the sister's desire to give back to MUSC in a meaningful way through the creation of the named lecture.



Laurie and Julie had an opportunity to chat with pancreatic surgeon William Traverso, M.D., who was the inaugural speaker at the Marion C. Anderson, M.D. Lecture in 2016.

"The Marion C. Anderson, M.D. Lecture perpetuates dad's deep commitment to educating and mentoring the next generation of surgical leaders."

-Julie Anderson



PHILANTHROPY NEWS: ENDOWED CHAIRS HONORED

During a combined MUSC Department of Surgery and MUSC Health Heart & Vascular Center Endowed Chair dinner, Dr. Prabhakar Baliga, Chair of the Department of Surgery, and Dr. Tom DiSalvo, Chief of the Heart and Vascular ICCE, celebrated six new Endowed Chair holders. Throughout the evening, honorees and leadership recognized the significance of the collaborations between cardiology, cardiothoracic surgery, and vascular surgery to create strong, innovative teams to improve patients' lives, made possible through the generous philanthropic support of donors. Honorees from the Department of Surgery include Arman Kilic, M.D. and Ravi Veeraswamy, M.D.



Arman Kilic, M.D.

John M. Kratz, M.D. Endowed Chair in Cardiac Surgery and Research

Arman Kilic, M.D. serves as the Surgical Director of the MUSC Health Heart Failure and Heart Transplant Program and is the Director of the Harvey and Marcia Schiller Surgical Innovation Center. Under his leadership, the heart failure program has grown in clinic volume and academic productivity. The program reached its highest historical volumes for both heart transplants and left ventricular assist devices (LVADs) during this past year (59 heart transplants and 49 durable LVADs). He has also established and leads a multidisciplinary cardiogenic shock program that has led to increased referrals and temporary mechanical circulatory support devices.

"I strongly believe that the loftier a building, the stronger the foundation that is needed," said Arman Kilic, M.D. "And I think we're fortunate that as our enterprise grows and accelerates upwards that we are built on a very strong foundation and stand on the shoulders of giants."

Dr. Kilic and Dr. Veeraswamy expressed their gratitude towards institutional leadership and support within the Department of Surgery, the Division of Cardiology, and the Heart and Vascular Board, with a special recognition towards Prabhakar Baliga, M.D., whose vision and leadership was described as the North Star guiding the Department of Surgery.



Ravi Veeraswamy, M.D.

Elliott-Robison Endowed Chair in Vascular Surgery

Dr. Veeraswamy is a Professor of Surgery and Chief in the Division of Vascular Surgery, where he leads a talented surgical team at one of the highest volume aortic centers in the country. Dr. Veeraswamy serves MUSC Health – Charleston as the Associate Chief Medical Officer for Peri-Operative Services and is Chair of the Perioperative Executive Committee. He is internationally recognized as an innovative and technically superb vascular surgeon, known for his life-long work in percutaneous approaches to aortic disease in particular. He has been a champion of endovascular aortic repair (EVAR) and thoracic endovascular aneurysm repair (TEVAR).

"It is through the generous philanthropic donors that support the endowment that makes the future of vascular surgery at MUSC bright," said Dr. Veeraswamy. "A future only made possible by the strong foundation built on the vision of vascular surgeons Bruce Elliott, M.D. and Jacob "Jay" Robison, M.D., along with Tom Brothers, M.D. whose combined 90+ years of dedicated service to MUSC laid the groundwork for the division that exists today." Working together with a vision to bring modern vascular surgery to MUSC, they built a nationally recognized Division of Vascular Surgery.

Generous donors and leadership within the MUSC Department of Surgery and the MUSC Health Heart & Vascular Center have come together to ensure a steadfast commitment to achieving optimal patient care. "The true gift of these endowed chairs and the support we receive from our leaders is that it empowers us to do what we really want to do – which is to make our patients' lives better," said Dr. Veeraswamy.

Heart and Vascular Honorees:

Daniel P. Judge, M.D. Edwin W. and Teresa H. Rogers Endowed Chair in Cardiovascular Research

Daniel H. Steinberg, M.D. Michael R. Gold, M.D. Endowed Chair in Structural Heart Disease

Ryan J. Tedford, M.D. Dr. Peter C. Gazes Endowed Chair in Heart Failure

Jeffrey R. Winterfield, M.D. Hank and Laurel Greer Endowed Chair in Electrophysiology

Surgeon. Innovator. Community Leader. Change Maker.

Brian Gary, M.D., always knew when he graduated from the MUSC Surgical Residency program, he would return to his hometown of Montgomery, Alabama. “I received excellent training at MUSC, especially in my area of interest, which was minimally invasive surgery (MIS),” said Dr. Gary. “I learned from some of the best in the field, including T. Karl Byrne, M.D. and David B. Adams, M.D. I had a strong desire to return home and use these skills to serve my community.” After graduating in 2006, he joined Jackson Hospital as a general surgeon with an interest in expanding their MIS program.

Dr. Gary recognized the robot’s many benefits to patient care and received additional training on the da Vinci Robot. He was the first surgeon to remove a gallbladder robotically in central Alabama. Over the next few years, Dr. Gary grew Jackson Hospital’s MIS and robotic surgery program. He now serves as Chief of Robotic Surgery at Jackson Hospital, leading a team of six general surgeons as well as urologists and gynecologists trained on the da Vinci Robot.

As a leader and innovator, Dr. Gary believes there are even greater opportunities for surgeons to lead change within their communities.

Dr. Gary grew up in Montgomery, Alabama, where both his parents were educators and involved in their local community. His parents started attending Dexter Avenue King Memorial Baptist Church during their college years at Alabama State University. At the time, Dr. Martin Luther King led the congregation, and Dr. Gary’s father had the privilege of being one of Dr. King’s chauffeurs. The church has a history of community service that spans well over a century and continues to this day, where Dr. Gary now serves as a deacon.

In addition to being an active participant in his church, Dr. Gary is a part of his children’s school board and other civic organizations. In 2020, he helped guide the city’s healthcare policy by serving on Montgomery Mayor Steven Reed’s transition team. Dr. Gary also used his voice as a medical leader by serving on the COVID task force for the state of Alabama. “Those leadership roles all came from having a growth mindset,” said Dr. Gary. “It starts with getting involved on a local level.

“Maybe it’s because of my upbringing and watching my parents’ involvement in the civil rights movement under the legacy of Dr. King, but I believe being a leader in your field of expertise offers an opportunity to make an even greater impact by serving as a leader at the community or societal level,” said Dr. Gary. “Medical professionals are often in a unique position of insight on what our community needs just by listening to our patients. As such, we have an opportunity to provide useful and important perspectives to community issues at large.”

Dr. Gary and his wife, Helen, are both actively involved in their



children’s schools and the local community. “I met Helen during my intern year. She was an epidemiologist at the Hollings Cancer Center at the time. We fell in love and married in my third year of residency. Our daughter, Claire, was born in my last year. It’s hard to believe that now - sixteen years later - we spent the summer touring colleges!” The couple also has a twelve-year-old son, Brian Jr., better known as “Deuce,” who keeps them busy with his sports and music. “We are blessed that both children are academically gifted and have a lot of interests,” he said. “We try to inspire them to lead a holistic and purposeful life.”

He says Dr. Baliga’s vision to support a more inclusive environment and encourage community engagement illustrates a growth mindset in living a purposeful life. “His vision is in line with everything we are talking about in our meetings,” he said. “You must be inclusive to shape the culture and progressive and forward-thinking to create change.” This fall, Dr. Gary will present a Grand Rounds as part of the department’s Diversity, Equity, and Inclusion Grand Rounds.

“You can’t move away and hope that things get better. You have to be a part of it.”

-Brian Gary, M.D.



Gratitude

To serve patients is our greatest privilege.



It is an honor to care for you and your loved ones.

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