



IN THIS ISSUE

Heather Evans, M.D., MS provides a glimpse into the life of a trauma surgeon

New clinical trial treats complex aortic aneurysms

Bridging the Gap: Minoo Kavarana, M.D. uses new approach to help young patients

MUSC celebrates Mike Yost, Ph.D. as its fifth fellow in National Academy of Inventors

The Allen family "Pays it Forward" with \$1.5M gift to Transplant

MESSAGE FROM THE CHAIR



P. Baliga

As we continue to strengthen and align our surgical leadership, Steven A. Kahn, M.D. joins us as the new Director of the Burn Program and Chief of Burn Surgery. As the newly appointed Burn Director, Kahn is charged with establishing the MUSC Burn Center that will provide comprehensive care for adults and children in both the inpatient and outpatient settings, with the vision of establishing an American Burn Association (ABA) certified burn center.

In our cover story, we provide a glimpse into a day in the life of a trauma surgeon through the eyes of reporter Bryce Donovan, who accompanied Heather Evans, M.D., MS, professor of Acute Care Surgery, during a busy night in the ER.

Also in this issue, we highlight the many ways our clinicians are improving patient care through innovation and technology. Whether it's participating in a clinical trial to improve the lives of patients with complex aortic aneurysms or changing what's possible for some of our tiniest patients in need of new hearts, our surgeons are on the leading edge, providing the best possible patient care.

On the academic forefront, the department has had a run-away success with several of our investigators in Vascular, GI, Transplant and Oncology achieving new grants. Recent funding included Dr. Mark Rubinstein's R01 funding of nearly \$2M from the NIH to expand immunotherapy research for lung cancer, Dr. Satish Nadig's \$1.87M NIH/NIAID Research Project Grant (R01) to investigate novel strategies to reprogram endothelial cell mitochondria such that they provide protection from immune-mediated injuries post-transplantation, and Dr. Jean Ruddy's K08 Mentored Scientist

Award allowing her to spend more time in the lab to investigate how signaling through the serum and glucocorticoid inducible kinase-1 (SGK-1) can promote development and progression of an abdominal aortic aneurysm.

The Residency program has established a complement increase in General Surgery and is applying for complement increases in Vascular and Cardiac Surgery. The undergraduate program has room to improve with new leadership, with Cindy Talley, M.D. recruited as our new vice chair of Education.

New to this issue is a section we call "Towards the Clinic" highlighting the MUSC Department of Surgery Center for Cellular Therapy (CCT), an FDA registered cGMP level facility that meets the most rigorous standards in the aspect of processing of cells, including an overview of Dr. Gilkeson's current research and partnership with the CCT.

We highlight the Allen Family and the Patterson Barclay Memorial Foundation's significant contribution and commitment to surgical excellence through their generous gift to create the Transplant Research and Immunobiology Institute. Also in our "Making a Difference" section, trauma survivor Charlie Hanna explains why he felt compelled to give back to MUSC and what he hopes his gift will accomplish.

And, of course, we take time to reconnect with colleagues old and new during our spring annual gatherings. We hope you joined us, and if not, we hope that you will make plans to visit next year!

Prabhakar Baliga, M.D., FACS
Fitts-Raja Professor of Surgery
Chair, MUSC Department of Surgery

SAVE THE DATES

Convocation

August 20
MUSC Campus

Surgery Research Recognition Day

Invited speaker & judge

Gerard M. Doherty, M.D.

Moseley Professor of Surgery

Harvard Medical School

Surgeon-in-Chief, Brigham Health &

Dana-Farber Cancer Institute

Crowley Family Distinguished Chair

Department of Surgery

Brigham and Women's Hospital

September 20
MUSC Campus

Smithy Lecture

Invited speaker

Thomas Krummel, M.D.

Emile Holman Professor, and

Professor, by courtesy, of Cardiothoracic

Surgery and of Bioengineering

Co-Director, Stanford Byers Center

for Biodesign

Stanford University

October 1
MUSC Campus

ACS Clinical Congress

October 27-31
San Francisco CA

CME COURSES

Up-to-date CME Course
information can be found at
muscd.edu/surgery/events

COVER: Heather Evans, M.D., MS
performs emergency surgery while on
trauma call. Photo by Sarah Pack.

NEWS & ANNOUNCEMENTS



A. Abbott



M. Armstrong



T. Brothers



D. Carneiro-Pla



S. Crowley



H. Evans



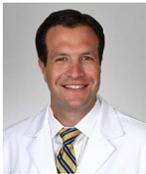
E. Eriksson



M. Katz



C. Denlinger



W. Lancaster



S. Leon



S. Nadig



R. Pullatt



J. Ruddy



V. Rohan



R. Sade



C. Streck

Andrea Abbott, M.D., MSCR, FACS invited to serve as a Member of the Training Committee for the Society of Surgical Oncology (SSO) for a two-year term.

Milton Armstrong, M.D. elected to the Board of Directors for the American Association for Hand Surgery, effective immediately.

Thomas Brothers, M.D. chosen as a recipient of the 2019 MUSC Foundation Distinguished Faculty Service Award.

Denise Carneiro-Pla, M.D. presented at Advances in Medical and Surgical Management of Thyroid Cancer, an AACE CME course in Tampa on February 2, 2019.

Shawn Crowley, RN, MSN Trauma Program Manager elected President Elect of the Trauma Association of South Carolina (TASC).

Heather Evans, M.D., MS, co-author on Evaluation of Wound Photography for Remote Postoperative Assessment of Surgical Site Infections published online in JAMA Surgery and presented Complications of Drug Abuse at the 49th Critical Care Congress in Orlando Florida.

Evert Eriksson, M.D. voted in for membership to the Western Trauma Association.

Marc R. Katz, M.D., MPH elected to Active Membership in the American Association for Thoracic Surgery (AATS).

Chadrick Denlinger, M.D. presented Neupilin 2b facilitates resistance to tyrosine kinase inhibitors in non-small cell lung cancer at the AATS 99th Annual Meeting.

William Lancaster, M.D. named Associate Medical Director of The Center for Cellular Therapy.

Stuart Leon, M.D. chosen as recipient of the 2019 MUSC Foundation Outstanding Clinician Award.

Satish Nadig, M.D., Ph.D. named Division Director, Academic Affairs in the Department of Surgery.

Rana Pullatt, M.D. chaired two sessions and presented at the Second IBC World Congress. He also presented six podium presentations in addition to being a panelist on the Duodenal Switch and Reoperative Bariatric Surgery Course during the 35th ASMBS Annual Meeting and has been appointed co-chair of the International Development Committee of the ASMBS.

Jean Marie Ruddy M.D. had a podium presentation: *Interleukin-6 is Necessary but not Sufficient for Abdominal Aortic Aneurysm Development* at the Society for Vascular Surgery Vascular Research Initiatives Conference and presented a poster at the American Heart Association Vascular Discovery: From Genes to Medicine Conference.

Vinayak Rohan, M.D. distinguished himself as one of the MUSC Recognized Research Innovators by achieving extramural research funding of more than \$100,000 in 2018.

Robert Sade, M.D. was honored with the naming of the ethics debate during the annual Southern Thoracic Meeting. According to the STSA website: "The Ethics Debate is a wonderful component of the STSA Annual Meeting each year. In honor of Dr. Robert M. Sade's contributions to these outstanding ethics debates, the annual event has been named the Robert M. Sade Ethics Lecture."

Christian Streck, M.D. selected to present at the 78th Annual Meeting of American Association for the Surgery of Trauma and Clinical Congress of Acute Care Surgery.

NEWS & ANNOUNCEMENTS

STEVEN KAHN JOINS THE DEPARTMENT OF SURGERY AS BURN DIRECTOR



S. Kahn

Steven A. Kahn, M.D. joins the MUSC Department of Surgery as the Director of the Burn Program and Chief of Burn Surgery. As the newly appointed Burn Director, Kahn is charged with establishing the MUSC Burn Center that will provide comprehensive care for adults and children in both the inpatient and outpatient settings, with the vision of establishing an American Burn Association (ABA) certified burn center.

Kahn joins MUSC with a strong background in the comprehensive care of the burn patient. Kahn is board certified in both General Surgery and Surgical Critical Care. Upon completion of his Acute Care Surgery and Burn Fellowship at Vanderbilt University in 2015, Kahn joined the University of South Alabama as an Assistant Professor of Surgery and Director of the Arnold Luterman Regional Burn Center.

During his tenure as the Burn Director, the burn center consistently achieved the #1 ranking in the United States for patient outcomes in one of the major national comparative databases. According to Kahn, these top outcomes were achieved by building a skilled multi-disciplinary team, creating evidenced based care protocols, building a quality improvement program, providing robust outreach and education for the emergency providers in their three state referral areas along the Gulf Coast, and utilizing cutting-edge technology and techniques.

“At MUSC, I look forward to building a nationally-ranked burn center and providing an important – and much needed – public health service to the citizens of South Carolina,” Kahn said.

Clinically, Kahn’s main area of interest is the comprehensive care of the burn patient. This includes not only their emergency and critical care needs, but

also surgical management of their injuries from both an acute and reconstructive standpoint and addressing their emotional scars after injury.

Kahn’s main research interests are centered around fire-fighter safety, burn resuscitation, smoke inhalation injury, non-opiate methods of pain control, wound healing, regenerative medicine, and burn reconstruction. He has published over 50 peer-reviewed articles and has received several research awards for his work.

He serves as a medical advisor for the International Association of Firefighters Burn Fund, and has participated in the development of FEMA-funded firefighter safety programs such as “It Happened in Seconds,” regarding situational awareness, gear limitations, and burn injury awareness. Kahn received the Nashville Business Journal “Healthcare Heroes” Award in 2015 for his work regarding firefighter safety, followed by the Mobile Bay “40 Under 40 Award” in 2016.

DEPARTMENT OF SURGERY BURN FUND

To support the Burn Fund
visit, connect2.musc.edu/surgery



J. White

JARED WHITE JOINS DIVISION OF TRANSPLANT SURGERY

Jared A. White, M.D. FACS joined the MUSC Department of Surgery as associate professor in the division of Transplant Surgery, where he leads the Liver Transplant Program serving as surgical director. Dr. White’s unique expertise is in minimally invasive hepatic surgery including laparoscopic and robotic liver resections.

Prior to MUSC, White was on the faculty at the University of Alabama (UAB) as an assistant professor, was promoted to associate professor with tenure and served as director of the UAB Liver Tumor Clinic and Interdisciplinary Liver Tumor Board.

White received his medical degree from the University of Tennessee, College of Medicine and completed his residency in General Surgery at UAB. In 2013, he completed an Abdominal Transplant and Hepatobiliary Surgery Fellowship at UAB.



ASHLEY HINK JOINS DIVISION OF ACUTE CARE SURGERY

Ashley Hink, M.D., MPH will join the division of Acute Care Surgery in September as an assistant professor, upon completion of a fellowship in trauma and surgical critical care at the University of Washington Harborview Medical Center. Hink received her MPH from Emory, her M.D. from the Brody School of Medicine at East Carolina University and completed her surgical residency at MUSC.

Hink's clinical focus is in the areas of trauma, critical care, burns and acute care general surgery, but she will also be dedicating time to further develop injury prevention programming at MUSC.

She has a strong interest in firearm injury prevention, and her research focus is aimed on improving the understanding, clinical care, and prevention of violent injuries, and identifying strategies for trauma centers to better respond to and support victims of violence.



D. DuBay



M. Lockett



D. Taber



J. Ruddy

APPOINTMENTS & PROMOTIONS

Upon the recommendation of Dr. Prabhakar Baliga, Chair, Department of Surgery, and with the approval of the Appointment and Promotion Committee of the College of Medicine, the Administration, and the Board of Trustees, the following faculty in the Department of Surgery have received notification of promotions, effective July 1, 2019:

- **Derek A. DuBay, M.D., MSPH** promoted from Associate Professor to Professor of Surgery/Transplant Surgery
- **Mark A. Lockett, M.D.** promoted from Associate Professor to Professor of Surgery/Oncologic-Endocrine Surgery
- **David J. Taber, Pharm.D.** promoted from Associate Professor to Professor of Surgery/Transplant Surgery
- **Jean Marie Ruddy, M.D.** promoted from Assistant Professor to Associate Professor of Surgery/Vascular Surgery



A DAY IN THE LIFE OF A TRAUMA SURGEON

For a split second, the ER is totally silent.

All eyes – and there are a lot of them: nurses, doctors, techs, an EMT standing just off to the side – are trained on **Heather Evans, M.D., MS.** On the table in front of the seasoned trauma surgeon is a young man with a gunshot wound to the chest. His body is motionless. There is no breathing.

No heartbeat. CPR does nothing. So she plays the only card she has left. She cuts him open and begins giving him compressions – directly on the heart.

Her lips don't move, but the rhythmic motion of her shoulders count out loud.

One. Two. Three. Four. Five.

And she brings him back.

They're all moving again now. Talking. Shouting. A nurse calls for an IV bag. Monitors in the corner make computerized cries for help. Evans shouts to a resident to take her place – “put your hands right here where mine are” she says – and

they're wheeling him toward the elevator. A cluster of nurses and doctors cram in – “Push the 4, push the 4!” – encircling the patient as the doors close, rapidly ascending to surgical trauma OR.

It's 5:52 a.m. and Evans has been on her feet for 14 consecutive hours. There's been a car crash, a ladder fall, a drunk man who picked a fight with a plate-glass window. The only thing Evans hasn't seen during this shift is sleep. Welcome to the dice roll of the on-call trauma surgeon: sometimes it's oddly quiet, sometimes it comes up snake eyes.

According to the National Center for Injury Prevention and Control, trauma is the leading cause of death for people



under the age of 45. In the United States alone, it accounts for over 150,000 deaths. In other words, Evans and her colleagues are a busy bunch.

In 2012, MUSC was recognized by the American College of Surgeons as a Level 1 Trauma Center, the first in the state bestowed with the honor.

Trauma centers are ranked as Level 1, 2 or 3, depending on the level of care they can provide, according to the S.C. Department of Health and Environmental Control.

In order to achieve that designation, Level 1 centers must have trauma surgery, anesthesia and operating room capabilities available at all times. MUSC checks all the boxes.

And thanks to folks like Evans, even the craziest, most out-of-control days have silver linings. Miracles big and small. A toe that can now wiggle. A trip outside for fresh air. Some even smile as they get to go home, a second chance granted.

TRAUMA SURVIVORS PATIENT SUPPORT FUND INJURY PREVENTION FUND

To support the Trauma Survivors Patient Support Fund, or the Injury Prevention Fund, visit connect2.musc.edu/surgery

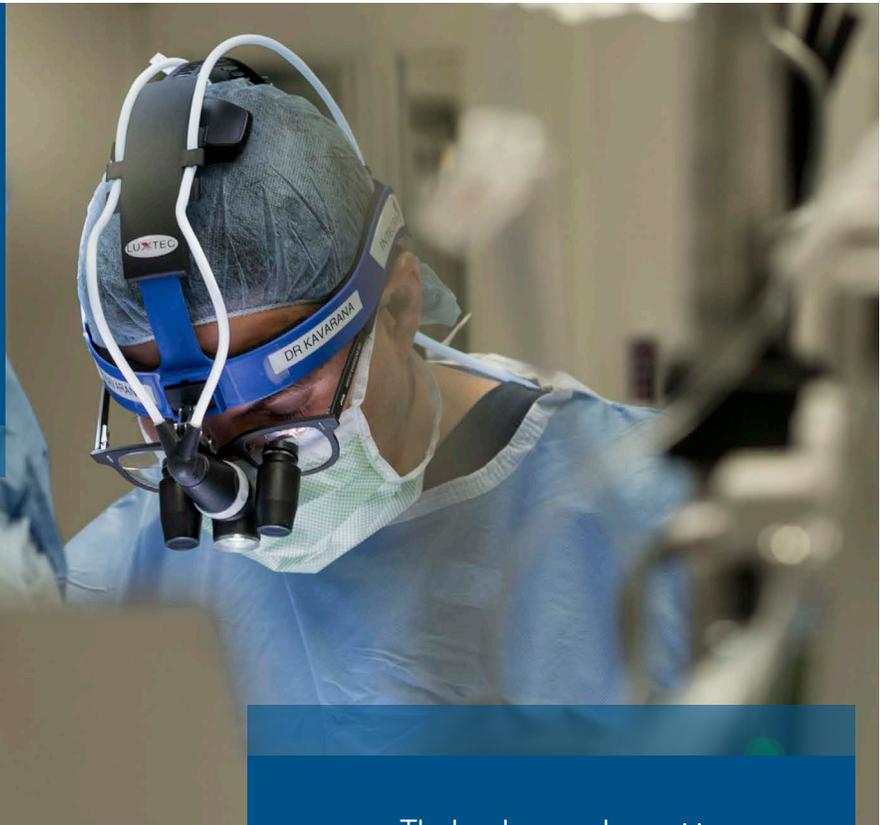
READ THE FULL STORY

To read the full story featuring a day-in-the-life of on-call trauma surgeon Heather Evans, M.D., MS check out MUSC's Catalyst News website at musc.edu/catalyst.

Article by: Bryce Donovan; Photos by: Sarah Pack

BRIDGING THE GAP

MUSC's heart failure team uses new approach to help young patients



As the organ responsible for taking blood from the body and enriching it with oxygen before recirculating it, the heart provides a vital function. Any problem with the muscles involved could deprive the body of the circulating blood, and therefore oxygen, that it needs to carry on.

The right side of the heart, known as the right ventricle, sends blood to the lungs while the left side, or the left ventricle, supplies blood to the rest of the body. In left-sided heart failure, or left ventricular dysfunction (LVD), the left pump cannot keep up with the body's demands.

Heart failure in general, and especially LVD, has been widely studied and treated in adults but not in children. "Most young patients with congestive heart failure will likely need a heart transplant," said **Minoo Kavarana, M.D.**, pediatric cardiothoracic surgeon at MUSC Children's Health.

But after hearing about a new procedure in Germany, Kavarana talked with the rest of the team about bringing it to the Southeast.

The average child on the heart transplant list waits two to six months for a new heart, and many are too sick to wait that long. In the past, surgeons have used assist devices to help the heart pump blood more effectively and give the child more time; however, implanting these devices can lead to complications, which led the heart failure team at MUSC to look into a new procedure: reversible pulmonary artery banding (PAB).

As one of the first centers in the Southeast to offer the procedure, MUSC brings a new treatment option to parents and patients. By placing a band around the vessel which carries blood from the right side of the heart to the lungs, surgeons can increase the pressure in the

artery. The band causes the partition between the right and left sides of the heart, the ventricular septum, to change its orientation towards the left, giving more support to that side of the heart.

This pressure change may allow the physician to wean these children off both the ventilator and medications they were using, and in some cases, they can even send them home. The key to the procedure's success, however, is the patient's type of heart failure. If the child's condition also affects the right side of the heart, PAB will not work.

While the procedure has only been performed a few times at MUSC for children with LVD, some have recovered and are no longer on the transplant list, and others have used the pulmonary artery band in place of assist devices while waiting for a transplant to become available. "We like to think of this procedure as either a bridge to transplantation or even a bridge to recovery," said Kavarana.

Article by: Celia Spell; Photo by: Sarah Pack



“It simplifies a complex anatomy, which is a great advantage to patients,” he added. “They appreciate a fairly straightforward procedure versus having a complex and longer stay.”

- Ravikumar Veeraswamy, M.D.

As part of the GORE® EXCLUDER® Conformable AAA Endoprosthesis study, MUSC will assess the safety and effectiveness of this particular stent in treating abdominal aortic aneurysms below the kidney in patients with challenging anatomy.

This study evaluates two types of patients who have angled aortic anatomies: those whose aorta is angled at 0 to 60 degrees and those with an aortic angle of 61 to 90 degrees. The stent includes angulation control, which gives the vascular surgeon the ability to bend the device to a patient’s unique anatomy.

The procedure is performed similarly to EVAR. Veeraswamy says preliminary results show quick procedure and recovery times in participants. “It simplifies a complex anatomy, which is a great advantage to patients,” he added. “They appreciate a fairly straightforward procedure versus having a complex and longer stay.”

Because MUSC provides tertiary care for all of South Carolina, many patients come to the Heart & Vascular Center for exceptionally challenging aortic concerns. “We are seeing more and more patients with complex problems,” he said. “And we work internally and externally with industry partners to help us meet those needs. It’s important to have clinical trials like these, because they allow us to treat complicated problems in a more effective manner.”

Article By: Carin Moonin; Photo by: Sarah Pack

NEW CLINICAL TRIAL TREATS COMPLEX AORTIC ANEURYSMS

The aorta is as thick as a garden hose. Over time or with diseases such as atherosclerosis, parts of the aorta can deteriorate, creating an aneurysm—a bubble or weak spot in the hose. When the aorta is straight, it maintains steady, even blood flow. Many aortic aneurysms are repaired through endovascular aneurysm repair (EVAR) instead of traditional surgery. During the procedure, a stent graft is inserted into the aneurysm through the groin to the femoral artery.

“When we use aortic stents to treat aneurysms, it has to be a nice, long, straight segment of aorta for the stent to work best,” explained **Ravikumar Veeraswamy, M.D.**, chief in the Division of Vascular Surgery. “The blood goes through the stent and doesn’t hit the aneurysm below it.”

But some patients don’t have a straight enough stretch of aorta for this treatment. When a typical stent is placed into a bent aorta, it can’t push up against the walls of the aorta to form a seal, so it leaks. Vascular surgeons can fix this by stapling the area to secure or change the stent’s location, but then they have to ensure it isn’t adversely affecting other areas, such as the kidneys.

“There needs to be a balance,” explained Veeraswamy. “The stent has to be strong enough to stay sealed and stay in place but flexible enough to bend.”

VASCULAR SURGERY SUPPORT FUND

To contribute to the Vascular Surgery Support Fund visit connect2.musc.edu/surgery



THE NEXT LEVEL

Kids' trauma center hits important new high

MUSC is **ONE** of just **59** Level 1 pediatric trauma centers in the country.

The trauma center at MUSC Children's Health has become the only kids' trauma center in the state to achieve Level 1 verification from the American College of Surgeons. That's the highest possible level.

Surgeon **Chris Streck, M.D.**, directs the pediatric trauma medical program at the Medical University of South Carolina and serves as a professor of surgery and pediatrics. "The main factors that distinguish Level 1 pediatric trauma centers are volume and quality of patient care. That includes 24/7 coverage by specialists including pediatric trauma surgeons, neurosurgeons, orthopedic surgeons, emergency medicine providers, anesthesiologists, child abuse treatment experts and intensive care unit providers. Injury prevention outreach and quality and volume of research are also major factors."

Streck said the trauma center team cares for kids hurt in major accidents or events. "The most common severe mechanisms of trauma that we care for are motor vehicle collisions, pedestrians and bicyclists struck by automobiles, falls from a height, bicycle- and golf cart-related injuries, gun and knife-related trauma, burns and child abuse."

MUSC Children's Health was first named a pediatric Level 1 trauma center several years ago by the South Carolina Department of Health and Environmental Control. Then, DHEC started requiring hospitals to meet even higher standards set by the American College of Surgeons to keep their designations, which MUSC Children's Health has now done. It's one of just 59 Level 1 pediatric trauma centers in the country.

"The pediatric trauma center at MUSC Children's Health benefits children across the Lowcountry. We also get transfers of severely injured children from across the eastern half of South Carolina," Streck said. "Having a high-level trauma center is like having good community amenities like parks, roads, schools and libraries where you may not inherently recognize their daily value until you need the resource, and then it's very meaningful."

MUSC Children's Health will open a new hospital in about six months. Streck said it will offer more state-of-the-art options for trauma patients and their families. "Our new facility's infrastructure will match the high level of care that we provide to kids. This is a win for everyone in the community."

Article By: Helen Adams; Photo by: Sarah Pack

A RETURN VISIT TO MUSC

Breast surgeon, role model & author returns for inspirational talk

Vivian Bea, M.D., is a pioneer in her field. From an early age, she has been determined to accomplish her dreams. Perhaps as importantly, she's also felt the need to give back and compelled to bring others along as well. She thanks wonderful mentors along her journey for her mindset. They will quickly tell you it's been her passion, hard work and dedication to improving the quality of life for patients that so quickly propelled her to rising star status in the medical field.

Recognized as a gifted breast surgeon, Bea used academics and strong will to push herself, continually moving forward. Bea completed both her residency and internship in surgery at MUSC and would go on to complete her fellowship in breast surgery at the University of Texas MD Anderson Cancer Center, in Houston. Today, she is a respected breast surgeon at MD Anderson Cancer Center at Cooper in Camden, NJ.

On Feb. 20, she was back on the campus she called "home" as the keynote speaker at a Black History Month (BHM) lecture. She welcomed guests with a warm and gracious "Good afternoon! It's so great to see so many familiar faces!"

Bea has dedicated her career to cancer research and treatment. She specifically focuses on breast cancer disparities. She described the cancer disparities that exist among minority groups, especially African-Americans. "Breast cancer mortality is 40 percent higher in African-American women," Bea said.

Many in the crowd saw Bea as inspirational. H. Biemann Othersen Jr., M.D., Professor Emeritus of Surgery and Pediatrics, was among them. Othersen was an important mentor to Bea. The state's first pediatric surgeon and one of the first in the entire Southeast, Othersen started the beloved and thought-provoking lectures called "Bee-Hive Sessions" for MUSC residents doing their pediatric surgery rotations. Bea said she will never forget the impact these lectures made on her. From him, she learned the importance of compassion and just sitting, listening and connecting with patients.

At the BHM lecture, Othersen posed a question that ultimately shed light on Bea's personal philosophy. "When working with children, everything is reliant on simplicity. How can we approach racial disparities and make the process simple?"

Bea responded, "I sit with patients Dr. Othersen, and I look them in the eye. I think that sitting and engaging with that patient lets them

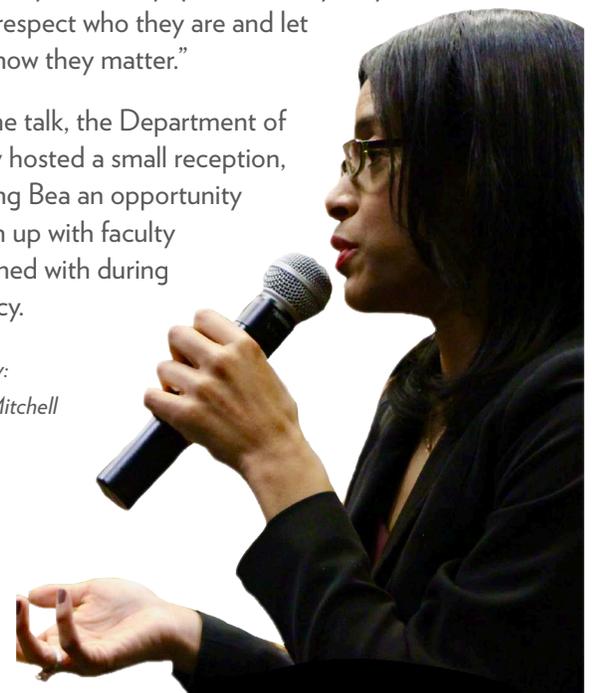


Top: Vivian Bea, M.D., pictured here with her son, C.J. some of her mentors including Dr. H. Biemann Othersen, Jr., M.D., who is standing next to her, and Dr. Nancy DeMore (far left) as well as members of the Office of Diversity and Inclusion. Bottom left: David Mahvi, M.D., Chief, Oncology Integrated Center of Clinical Excellence, greets Vivian Bea, M.D. Bottom right: Bea (far right) enjoys a laugh with Marci Dorlon, M.D., Steve Fann, M.D., and Stuart Leon, M.D., faculty she trained with at MUSC.

know that they are important. Whether they are white, black, Asian or Hispanic, I first sit and listen to them. I then explain their diagnosis in layman's terms and give them an opportunity to ask any questions they may have. I respect who they are and let them know they matter."

After the talk, the Department of Surgery hosted a small reception, providing Bea an opportunity to catch up with faculty she trained with during residency.

Article By:
Capers Mitchell





HEALTH & WELLNESS INITIATIVE IMPROVES LIFE AS A RESIDENT

Eat when you can. Sleep when you can. Pee when you can. This mantra has long been uttered from surgeons at all levels of training looking to pass on words of wisdom to those beginning their career in medicine.

While stories of eating a diet of graham crackers and peanut butter and falling asleep at a stop sign driving home post call may be told with bravado, the underlying message of deprivation cannot be overlooked.

A desire to change this culture has taken root and the Department of Surgery is committed to improving the wellness of residents and faculty. Over the last year an initiative was started to evaluate the current level of burnout among residents and faculty and then determine what improvements can be made.

A survey of residents has indicated improving quality time and food would contribute to making residency a little less stressful. In response, the residents have been given two personal days to

use throughout the year so that they can take a day to see the dentist, attend a school performance, or spend the whole day sleeping if they choose.

Additionally, updates to the resident work spaces including new Italian leather couches are aimed at creating a more comfortable environment.

Perhaps the most challenging improvement has been food, but a monthly lottery for a \$100 food card and coffee and bagels at M & M have been popular additions.

Along with paying for a state medical license, purchasing loupes during the second PGY year, and quarterly social gatherings, the Department is making strides to foster a culture of comradery and wellness.

The wellness committee, spearheaded by Drs. Garcia, Mullner, and Abbott, is always looking for new ideas and ways to improve. If you have an idea or suggestion, please reach out to one of them.

PRESENTATION & RESEARCH OPPORTUNITIES OFFER GROWTH

Promoting intellectual curiosity and encouraging research are important roles for residency programs. Recent awardees are listed below:

- **Resident Research Proposal Awardees:**
Julie Siegel, M.D. PGY-2: Mentor Nancy DeMore, M.D. *SFRP2 antibody as an inhibitor of tumor angiogenesis* and **Leah Plumblee, M.D. PGY-2:** Mentor Satish Nadig, M.D., Ph.D. *IRI exacerbates immunogenicity in ECs during organ transplant.*
- **Jerec Ricci, M.D. PGY 3 Research** received a T-32 Postdoctoral Fellowship from the NIH. His research is *Mitigating Ischemia Reperfusion Injury and Vascular Thrombosis in Vascularized Composite Allotransplantation* and it will be conducted in the laboratory of Dr. Carl Atkinson and Dr. Satish Nadig.
- **Ryan King, M.D. PGY 2 Vascular Surgery Integrated** awarded 2nd place of resident presentations at 13th Annual Introduction to Academic Vascular Surgery conference. Abstract entitled: *Outcomes for peripheral vascular intervention and lower extremity bypass in kidney transplant recipients are superior to outcomes of patients remaining on dialysis.* Dr. Thomas Brothers is senior author.
- **Daniel Crane, M.D. PGY 7 Plastic Surgery** received the Best Presentation Award in the Reconstruction/Burn/Microsurgery Session at the ASPS Resident Abstracts Session for *Venous Thromboembolism Incidence and Risk Factors Associated with Microvascular Reconstructive Surgery: A NSQIP Analysis.*
- **Catherine Chung, M.D. PG-Y 3** awarded first place in the American Society of Diagnostic and Interventional Nephrology (ASDIN) Poster Abstract Award. The abstract was entitled: *The impact of perioperative music therapy on patients undergoing dialysis access with moderate sedation.* Dr. Vinayak Rohan is the senior author.

Presentations are an effective and important way for residents to discuss their findings at regional and national conferences. This spring several residents had the opportunity to present their research. Here is a sampling:

- **Lloyd “Mac” Felmly, M.D. PGY 4 CT Surgery Integrated** presented *Hybrid Double-Valve Replacement: Robot-Assisted Valve-in-MAC and Transfemoral TAVR* at the American Association for Thoracic Surgery annual meeting. Dr. Marc Katz is the senior author.
- **Avianne Bunnell, M.D. PGY 5 Vascular Surgery Integrated** presented *Elevated cardiopulmonary complications after revascularization in patients with severe mental health disorders* at the Association of VA Surgeons.
- **Joseph Anderson, M.D. PGY 3 Vascular Surgery Integrated** presented *Discharge To A Facility Is Not Protective Against Wound Events Following Emergent Femoral Artery Repair* at the VESS.
- **Nick Ward, M.D. PGY 4** presented a poster at the American Heart Association Vascular Discovery: From Genes to Medicine Conference in Boston, MA, *Angiotensin II Type I Receptor Blockade with Losartan Attenuates Abdominal Aortic Aneurysm Formation in Spontaneously Hypertensive Mice.*
- **Sami Tarabishy, M.D. PGY 2 Plastic Surgery Integrated** presented *Thrombocytosis Is Associated with Complications after Microvascular Free Flap Surgery: A Review of NSQIP* at the American Society for Reconstructive Microsurgery Annual Meeting. **Fernando Herrera, M.D.** is the senior author.

Education Division Receives Favorable ACGME Annual Review

All Department of Surgery education programs received favorable ACGME actions in the ACGME annual review: General Surgery, Vascular Surgery, Surgical Critical Care, Cardiothoracic, Plastics Fellowship all received continued accreditation and the Plastics Integrated received continued accreditation without outcomes.

ASPS In-Service Exam: the Ultimate Test of Plastic Surgery Knowledge

Dr. Milton Armstrong, Chief of the Division of Plastic and Reconstructive Surgery, reports that all six of the Division’s Independent residents scored above the 60th percentile on this year’s In-Service Exam for Plastic Surgery, with the two first year residents (PGY-6) scoring in the 91st and 98th percentiles, respectively. They are: **Craig Moores, M.D. PGY 8**, **Jon “Simon” Ivey, M.D. PGY 8**, **Daniel Crane, M.D. PGY 7**, **Zachary Young, M.D. PGY 7**, **Steven Hermiz, M.D. PGY 6**, and **Busayo Irojah, M.D. PGY 6**.



POSTGRADUATE COURSE IN SURGERY EXPERIENCES RECORD ATTENDANCE

The 48th annual Postgraduate Course in Surgery was held April 25-27, 2019 in downtown Charleston.

The course featured three nationally known speakers: Michael House, M.D., Matthew Mutch, M.D., and Richard Peterson, M.D., MPH. They joined 20 MUSC faculty members who taught cutting edge surgical care to 125 attendees from 23 states.

The course enjoyed the highest attendance it has seen

in the last five years. It is one of the longest running courses designed to help practicing general surgeons and Advanced Practice Providers improve their surgical knowledge. The fun and exciting format allowed participants to interact closely with faculty and industry leaders.

Mark your calendars for next year's course which you don't want to miss, **April 30 to May 2, 2020.**

Douglas Norcross, M.D. Completes First Year as Associate Dean for Admissions



Douglas Norcross, M.D., professor of Surgery in the Division of Acute Care Surgery, was appointed associate dean for Admissions in the College of Medicine (COM) last year and has completed his first year in that role.

Norcross joined MUSC as director of the Trauma Center in 1989. In addition to serving the clinical enterprise as the trauma director, Norcross's desire to educate the next generation of medical professionals led him to become a member of the COM's Admissions Committee for the past 20 years. Another education leadership opportunity came his way in 2011 when he was named vice chair of Education in the Department of Surgery.

"I had the privilege of building on Jon van Heerden's legacy, who served as the first vice chair of Education," said Norcross. "Within a year of the division's inception in 2008 and under van Heerden's leadership, the division successfully gained designation as an ACS Education Center of Excellence." To build on that legacy, Norcross considers his most significant contribution to be coordinating the various residency programs that at the time were operating separately.

"It was a great time of growth for the education divisions and for the department as a whole," he explains. "We built on that opportunity of growth. In addition to aligning the residency programs, we also started the integrated vascular surgery residency program and integrated plastic surgery residency

program. Importantly, we identified a need for additional expertise in graduate medical education and, as a result, were able to recruit June Cameron to serve as director of Education.”

His years of service to MUSC in medical and resident education provided a new opportunity. Last year, Norcross was appointed associate dean for Admissions, where he chairs the MUSC College of Medicine’s Admissions Committee and oversees the admissions processes for the COM.

Since assuming this role, he has revised and, he hopes, improved the admission process. “As part of the process, we redefined the scoring system we use,” said Norcross. “The new scoring system allows us to better assess the various attributes we evaluate and to better advise unsuccessful applicants so that they can improve their chances of acceptance in the future. We also standardized the process we use to look at an applicant’s unique attributes not captured by our scoring system giving us the opportunity to select a more diverse class.”

With Norcross’s new role in the College of Medicine, Cynthia Talley, M.D. was named vice chair of Education. “I am really excited to see Dr. Talley take the MUSC surgical residency programs to the next level,” said Norcross. “I’ve been impressed by her knowledge of resident education programs, her common sense approach, and her genuine passion for mentoring. Her addition to the Surgery department’s education efforts is a definite win for our students, our residents, the department, and ultimately, the patients.”

Cynthia Talley, M.D., Named Vice Chair of Education in the Department of Surgery



C. Talley

Cynthia Talley, M.D., associate professor of Surgery, was named the vice chair of Education. Talley joined the division of Acute Care Surgery in December 2018. Prior to joining MUSC, Talley was an associate professor for the Section of Trauma and Acute Care Surgery at the University of Kentucky, program director for the Surgical Critical Care Fellowship, director of the ATLS Program, and faculty advisor for the Ward O. Griffin Student Surgical Society. During her tenure at the University of Kentucky, Dr. Talley participated in numerous hospital committees and university activities including the Graduate Medical Education (GME) Compliance and Program Review Committees.

In her role as vice chair of Education, she will oversee the educational programs at the departmental level: the students, residents, fellows, faculty, APPs, and CME courses as needed. According to Talley, during her recruitment, she spoke with Dr. Baliga on several occasions learning that their philosophy on teaching is very similar. They strongly believe the legacy of MUSC lies in the hearts and minds of its graduates.

MUSC is a diverse and highly-skilled faculty group delivering care at a tertiary referral center. “While patient care and education are two pillars of academic medicine, they are not mutually exclusive,” said Talley. “Under our guidance, our trainees can learn to provide the highest level of quality surgical care to our patients.”

Her vision for the department is for faculty, individually and collectively, to inspire, promote, and encourage the next (and current) generations of surgeons with thoughtful professional development, tools for life-long learning, and skills for success as a surgical leader.

“We are so fortunate to work at an academic center where we can contribute to the success of our future surgical leaders,” said Talley. “All the trainees deserve the respectful attention that we would give our future boss or colleague because that is certainly the path many are plotting. Our task then is to learn how to be the most effective teacher and mentor.”

SURGICAL RESIDENT RESEARCH AND EDUCATION FUND

To support the Surgical Resident Research and Education Fund visit, connect2.musc.edu/surgery



RESEARCH NEWS

Triple combination cancer immunotherapy improves outcomes in pre-clinical melanoma model

In adoptive cell transfer immunotherapy, T cells that are able to recognize a tumor are harvested, expanded in the laboratory and then reintroduced to attack the tumor. However, they often do not last long enough to finish the job.

Triple combination cancer immunotherapy improves outcomes in a pre-clinical melanoma model, according to a study published in *Clinical Cancer Research*. Combining adoptive cell transfer (ACT) with a pan-PIM kinase inhibitor and a PD1 inhibitor improves outcomes in a pre-clinical model, reports Hollings Cancer Center researchers. “With this triple combination therapy, many more T cells persisted. That’s important for ACT, because the longer the transfused T cells stay inside the host to fight tumor cells, the better,” says **Shikhar Mehrotra, Ph.D.** senior author of the article.

ANNUAL RESEARCH FUNDING REACHES \$12 MILLION

Research funding reached \$12 million dollars in fiscal year 2019, of which greater than \$8 million are from Federal dollars. Several of our investigators received new grants as outlined below.

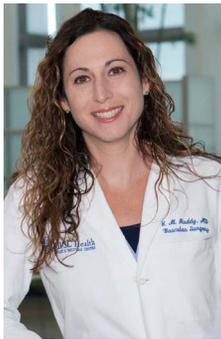
RECENT FUNDING



Mark Rubinstein, Ph.D. Receives \$1.98M NIH Funding to Expand Immunotherapy Research for Lung Cancer

Last year, *Lancet Oncology* published an article on the first in-human report of the combination of two novel classes of immune drugs for the treatment of cancer by **Drs. Mark Rubinstein** and **John Wrangle**. Their phase Ib study results indicate that these two drugs can be used safely together. Although the study was not designed to assess efficacy, encouraging data suggest that the combination could provide clinical benefit to non-small cell lung cancer patients that had become resistant to approved immunotherapies.

Drs. Rubinstein and Wrangle recently received R01 funding of over \$1.9 M from the NIH to conduct a more in-depth analysis of the patient samples to understand better why the therapy may be working and which patients are most likely to respond. According to Rubinstein, this grant funding will help the researchers design more effective treatments in the future.



Jean Marie Ruddy, M.D. Receives Prestigious Awards from the NIH and the SVS Foundation

Jean Marie Ruddy, M.D. was awarded a five year \$882,360 NIH/NHBLI Mentored Clinical Scientist Research Career Development Award, (K08).

Dr. Ruddy was also chosen as the recipient of the 2019 SVS Foundation/American College of Surgeons Mentored Clinical Scientist Research Career Development Award from the Society of Vascular Surgery (SVS) Foundation, the SVS Research & Education Committee and the American College of Surgeons Scholarships Committee. The SVS supplemental award provides additional salary support of \$50,000 per year for five years, totaling \$250,000.

These awards will give the vascular surgeon more time in the laboratory to investigate how signaling through the serum and glucocorticoid inducible kinase-1 (SGK-1) can promote development and progression of an abdominal aortic aneurysm. Identifying a key role for this protein will establish it as a target for pharmacotherapeutic engineering of medications to inhibit aneurysm growth.



Satish Nadig, M.D., Ph.D. Receives \$1.87M Funding

Satish Nadig, M.D., Ph.D. was awarded a five year \$1,868,750 NIH/ NIAID Research Project Grant (R01) to investigate novel strategies to reprogram endothelial cell mitochondria such that

they provide protection from immune-mediated injuries post-transplantation.

Transplantation is an established therapy for patients suffering from end-stage organ failure. Despite improvements in immunosuppressive therapies, long-term graft survival remains poor, and thus, new therapeutic strategies are urgently needed to improve outcomes.

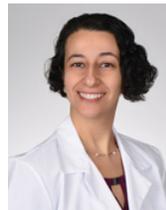
Dr. Nadig's research will, for the first time, explore the mechanistic relationship between the mitochondrial morphology and immunometabolism of endothelial cells and their immunogenicity in the setting of transplantation.



N. DeMore



S. Mehrotra



M. Javid



F. Herrera

RECENT FUNDING & AWARDS

Nancy DeMore, M.D. and Shikhar Mehrotra, Ph.D. Receive HCC Funding

Nancy DeMore, M.D. and **Shikhar Mehrotra, Ph.D.** received funding as part of the Hollings Cancer Center Pre-Clinical & Clinical Concept Award program, an internal funding mechanism that provides support for the development of pre-clinical and clinical trial concepts based on laboratory discoveries made at Hollings.

- **Nancy DeMore, M.D.**

Project: Curcumin "Window Trial" of Anti-tumor Effects on Breast Cancer Primary Tumors

- **Shikhar Mehrotra, Ph.D.**

Project: Programming Metabolically Fit Tumor Infiltrating Lymphocytes (TILs) for Treating Urologic Cancer by Advanced Cell Technology

Mahsa Javid, M.D., Ph.D. Receives the Paul LoGerfo Research Award

Mahsa Javid, M.D., Ph.D. received the Paul LoGerfo Research Award from the American Association of Endocrine Surgeons (AAES). The research award provides a funding mechanism for her research to study the role of advanced glycation end products (AGEs) in thyroid cancer.

Fernando Herrera, M.D. Receives Research Grant from the Allergan Foundation

Fernando Herrera, M.D. was awarded a research grant from the Allergan Foundation. The purpose of this funding is to assist with creating a breast reconstructive database, outcomes research and breast reconstruction patient education.

RESEARCH NEWS

MUSC celebrates Yost as its fifth fellow in National Academy of Inventors



Michael Yost, Ph.D., vice chairman of Research in the Department of Surgery was accepted as a fellow in the National Academy of Inventors. His MUSC colleagues honored him locally during the fifth annual induction ceremony.

“The National Academy of Inventors was founded to recognize academics with accomplishments in patents, licensing and commercialization,” said Michael Rusnak, executive director of the MUSC Foundation for Research Development. “People nominated as fellows have had an impact on quality of life, economic development and the welfare of society,” he said.

Provost Lisa Saladin, PT, Ph.D., said interacting with faculty members like Yost is one of the great pleasures of her job.

“He has made substantial contributions to engineering, science, tissue engineering, inflammation modulation, muscle repair and regeneration, 3D bioprinting and the use of collagen as a biomaterial for regenerative medicine,” she said.

Yost talked to the audience about how he has “stood on the shoulders of giants” throughout his life and career, because other people took the time to lend him a hand.

One of those giants was his father, who changed the trajectory of his own life by leaving behind the coal mining and farm life he knew to become a submariner. His father then worked his way through undergraduate and graduate school, Yost explained, eventually securing a position at the Johns Hopkins University

Applied Physics Laboratory and contributing to projects like the specially-designed Apollo spacesuits.

Another was his graduate school mentor, Lou Terracio Ph.D., who pushed him to begin applying for patents and “held his hand” through his first federal grant funding application, Yost said.

A family friend and inventor, Jim Ferguson, gave Yost thoughtful advice when Yost was struggling with the demands of working, raising a young family, attending graduate school and following his mentor’s advice to pursue patents.

“Jim said to me, ‘I want to tell you something else. I want you to learn to quiet your mind. I want you to start trusting your intuition, and I want you to trust your own creative thoughts,’” Yost said.

To conclude his remarks, Yost passed along the very wisdom he had collected from the people who helped him throughout his career.

“I want you to start to learn to trust your intuition, quiet your mind and trust your own creative thoughts,” he told the audience. “Get your work out there in the world where it can do some good and get it in the hands of people who can use it.”

And, he added, “When the opportunity arises – and it will – I want you to bend down, and I want you to extend your hand, and I want you to lift up the next person and be the giant in their life.

Article By: Leslie Cantu; Photo by Anne Thompson

TOWARDS THE CLINIC

Inside the Center for Cellular Therapy

Message from the Director



S. Nadig

At MUSC, the Center for Cellular Therapy (CCT), an FDA registered/FACT approved GMP level facility, offers customizable services including isolation and purification of cellular products for research and clinical purposes.

We have had another successful two quarters at the CCT, and I have had the distinct honor to work alongside a dedicated group of individuals committed to the mission of moving our groundbreaking work at the benches of MUSC to the bedside. I am also pleased to report that we have added an additional member to our CCT family with Dr. Mehri Ulas officially joining our group. Finally, Dr. William Lancaster now serves as our Associate Medical Director.

The CCT is continuously striving to push forward the boundaries of medicine, both at MUSC and nationally. The CCT has continued a steady volume of islet cell isolations and is the second largest autoislet isolation facility in the country. We have also reaped the benefits of very strong basic and translational scientific work done by **Gary Gilkeson, M.D.** and his group, highlighted in "Under the Scope."

As always, I am happy to discuss the many things that are happening in the CCT. We are continually and deliberately focused on translating various therapies stemming from our own laboratories and beyond...towards the clinic.



Satish Nadig, M.D., Ph.D.

Associate Professor Surgery, Pediatrics Critical Care, Microbiology, & Immunology

UNDER THE SCOPE

Systemic lupus affects primarily young women of color during their reproductive years.



G. Gilkeson

Only one drug has been approved for treating lupus in the last fifty years. Current therapies have limited efficacy and significant toxicity especially regarding reproductive health. Mesenchymal stromal cells (MSCs) can be derived from a number of sources including bone marrow, umbilical cords or adipose tissue. Collaborators in China have treated over 100 patients with refractory lupus to standard therapy with MSCs from umbilical cords and report a 75% response rate with minimal toxicity.

In collaboration with these Chinese investigators, we were able to transfer the technology needed to produce the cells to the MUSC Center for Cellular Therapy (CCT). We performed pre-clinical testing of the cells in cell culture and in animal models of lupus and found similar significant immune effects and amelioration in disease in mice as reported by our Chinese colleagues.

Based on these findings, we performed a Phase I trial of umbilical cord derived MSCs in 6 lupus patients refractory to current therapy. From these studies, we were able to obtain funding from the Lupus Foundation and the NIH to perform a double blind placebo controlled multicenter trial of MSCs for the treatment of 81 patients with refractory lupus. Six other centers are participating including Emory, UNC, Rochester, Northwestern, UCSD and Cedars Sinai in LA. All the cells are produced in the MUSC CCT facility.

Having a facility like the CCT is critical for this project. With this funding, a study of over eight million dollars will be performed over the next five years. **Hongjun Wang, Ph.D.**, **Tara Duke** and **Colleen Cloud** of the CCT were critical to developing the techniques for cell derivation and for getting approval from the FDA to perform the trial. The funding of the trial would also not have occurred without the proven excellence and certification of the facility.

Enthusiasm for such cellular therapies is off the chart as we have had over 100 inquiries from patients wanting to participate in the trial. Only through such trials can the efficacy of a new therapy be proven. The immune studies will provide us with critical clues as to the underlying factors that contribute to lupus and perhaps markers that will define which patients will respond to this treatment and which may not.

GATHERINGS

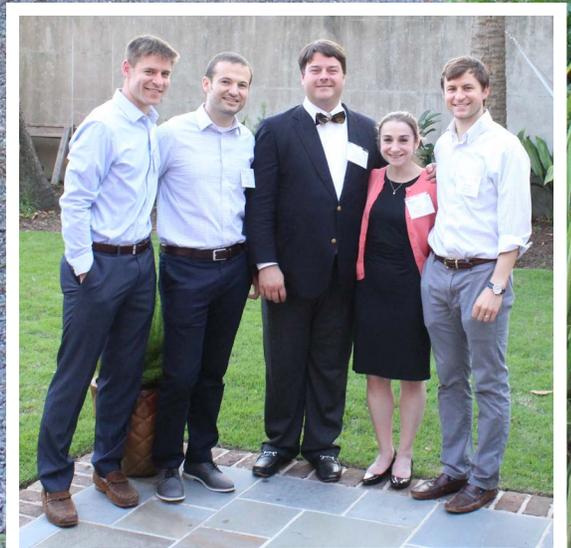
The Department of Surgery held two alumni receptions this spring, providing opportunities for alumni and faculty to reconnect and renew old friendships.



MUSC SURGICAL SOCIETY RECEPTION

Annual Curtis P. Artz MUSC Surgical Society Reception held in conjunction with the Postgraduate Course.

During a perfect spring evening, Drs. Aaron and Thu Leshar welcomed us into their charming home in the historic district of Charleston for a reception attended by our surgical alumni, residents, faculty, and Postgraduate Course speakers.





COLLEGE OF MEDICINE **ALUMNI WEEKEND** DEPARTMENT OF SURGERY **RECEPTION**

On behalf of the Curtis P. Artz MUSC Surgical Society, Dr. and Mrs. Prabhakar Baliga invited surgical alumni, current department of surgery faculty and surgical residents and fellows to their home during the 2019 MUSC College of Medicine Reunion Weekend. Andy Artz, grandson of Curtis P. Artz, was able to attend the reception for whom the surgical society is named and hear stories first hand from Dr. Othersen and other alumni who knew his grandfather.





PAY IT FORWARD

Grateful Family Pays it Forward With \$1.5 Million Gift Towards Transplant Research

When Dan Allen – and three of his four siblings – needed kidney transplants due to polycystic kidney disease (PKD), a genetic disorder, the Allen family knew they wanted to do something so their children wouldn't have to suffer the same fate. The family members realized they had the power through their family foundation, the Patterson Barclay Memorial Foundation, to change the paradigm of transplantation. It was the where and how they needed to find.

“What often ails our transplant patients is that they all are susceptible to infections, cancers, diabetes, and general systemic consequences of their very powerful immunosuppressant medications,” said **Satish Nadig, M.D., Ph.D.**

Some of the siblings were already suffering from some of these side effects – but they weren't thinking of themselves. “We have children and grandchildren - we're doing this for them.” said Dan's brother, Jack, who had his transplant here at MUSC last year. “We don't want to see them suffer the same challenges we are experiencing.”

Nadig and his colleague, **Carl Atkinson, Ph.D.**, an immunologist, had successfully demonstrated in animal models a way to deliver the immunosuppressant rapamycin via a nanocarrier to a transplanted kidney and its local environment only, leaving the rest of the body's immune system unaffected. Although rapid progress has been made, the science was in the early stages, and would take years to get to clinical trials.

In 2017, the Allen family foundation made a generous gift of \$500,000 to advance this promising research and honor their mother with the naming of the Lee Patterson Allen Transplant Immunobiology Laboratory (TIBL).

Thanks to their support, researchers in the TIBL have made great strides in addressing the health and longevity of transplant patients. When Dan's twin brother, Fred, passed away in January, the family wanted to do more to expedite the research.

In May, they honored Fred with an additional \$1.5M to the Transplant Research and Immunobiology Institute Fund with the hopes that community partners and patients will match their gift to reach the needed \$3M goal.

With the new funding, the lab will be poised to move into large animal studies in the next step to get to clinical trial.

“This contribution is about one family's desire to create a better life for future generations,” said Atkinson, “But, the gift is so much more. It's about changing transplant as a field – how we pretreat organs, how we minimize the impact of the pretreated organ, how we achieve better outcomes, and once the patient is transplanted, how we eliminate the dangerous systemic side effects,” he adds. “That's the Holy Grail.”

For Nadig, the gift is very personal. He has dedicated his life to finding a solution to the harmful systemic side effects of immunosuppressant medications. “Not only do I truly believe this gift will change the paradigm of transplant,” said Nadig. “But on a personal level, I know it will change the lives of my patients and I can't thank the members of the Allen Family enough.”

“We are very grateful to be where we are now,” he adds. “The fact that the Allen family wants to give back is life-changing for so many transplant patients and their families and we hope more people are inspired to work towards matching their generous gift.”

MAKE ME A MATCH

Can you help us meet our goal by making a matching gift?

Your private funding will support current priority needs in the Transplant Research and Immunobiology Institute:

- Nanoparticle production, quality control
- Large Animal Studies
- Cell sorting equipment, operative microscope, microscopic imaging
- Normothermic Perfusion Pumps
- Outcomes analysis

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



TURNING TRAUMA INTO HOPE

The thing Charlie Hanna remembers most is the quiet right before it happened.

It was a Monday morning, long before the sun had come up, and it was cold. Februarys in the Upstate of South Carolina were usually cold, he thought, but not like this. He had just dropped off the kids at daycare when he crossed a bridge – the same one he had driven over not 15 minutes before – and that’s when he hit the ice.

Instinct told him to take both feet off the pedals, but the tension of the situation caused him to torque the steering wheel to the left. The ice ignored his input, friction a mere memory now. The truck glided silently for what felt like seconds to Hanna.

A passing motorist would later tell Hanna he saw his truck barrel roll at least five times before finally coming to rest on its side. Hanna came to seconds – or was it minutes – later. Hard to be sure with all the smoke in the cab, the passenger window pointing toward the now-cobalt blue sky, his brain scrambled and confused.

“I thought the truck was on fire,” he recalls, the powder from his airbag swirling inside the vehicle, mimicking smoke. “Adrenaline just took over, and I remember climbing out the window and running as hard as I could.”

Eyewitnesses said he made it about 300 yards before collapsing. In minutes, EMTs were on the scene and rushed Hanna to a local ER. Somehow, he had avoided major injury, and all his scans were normal. He was lucky, the doctors said.

“As awful as that experience was... If that was my only brush with trauma, I probably wouldn’t have dwelled on it too much,” Hanna said of his 2012 car wreck. But then a colleague and longtime friend had a similar experience affect his family.

“When I came to visit Nathan at MUSC and saw how all this had not only affected him but his entire family, I thought, ‘I’ve got to do something.’”

- Charlie Hanna

On October 27 of 2017, while stargazing on a clear moonlit night, Tia and Nathan Fry were run over by a truck driving illegally on the beach at Sullivan’s Island. In the aftermath, Tia had several broken ribs and a ruptured spleen; Nathan suffered multiple bone fractures as well as a brain injury. They were rushed to MUSC – the state’s first and Lowcountry’s only Level I trauma center – where Tia was released four days later. It would take Nathan months of care and rehab before he would be back on his feet.

“When I came to visit Nathan at MUSC and saw how all this had not only affected him but his entire family, I thought, ‘I’ve got to do something,’” Hanna said.

He got in touch with MUSC, and thanks to a generous financial donation, together they created the Trauma Survivors Patient Fund. The newly created fund will provide support to survivors and their caregivers, encouraging recovery from injury.

“We are incredibly touched by Mr. Hanna’s generosity, but more importantly, we are inspired by his vision,” said **Dr. Bruce Crookes**, chief of Acute Care Surgery. “As a trauma survivor himself, he truly understands the needs of our patients. We are looking forward to a long and fruitful collaboration.”

Article by: Bryce Donovan; Photo by: Sarah Pack

TRAUMA SURVIVORS PATIENT SUPPORT FUND

To support the Trauma Survivors Patient Support Fund
visit, connect2.musc.edu/surgery

THE PASSING OF A HERO

A letter of gratitude and remembrance from
Dr. H. Biemann Othersen, Jr.



Friends and Colleagues,

My personal definition of a hero: an individual with significant accomplishments – often at considerable risk – along with humility and an unwavering personal moral compass.

Dr. Randy Bradham, who passed away last year, fit those qualifications perfectly. He has long been a mentor to me and, as I have gotten to know him better, he has become a hero.

I first met Randy when I began a surgical residency at the Medical University of South Carolina (MUSC) in 1957. As Chair of the Department, Randy was strict but fair and always honest in his dealings with the surgical residents. He was a good surgeon and I admired his qualities of leadership and his humility.

My co-residents, Gilbert Bradham (Randy's brother), Julian Buxton, and I observed how Randy played a major role in preserving and improving the surgical training programs.

He was the steady hand at the helm.

When Randy retired from surgery in 1995 at age 71, he not only wrote four books but also managed and developed a commercial blueberry farm (Sweet Blues Farm).

We will all miss Randy, especially those who received surgical training at MUSC and benefitted from the work and wisdom of this individual who – at a critical time – selflessly served as the second full-time Chairman of the Department of Surgery at MUSC.

In 2017, the Curtis P. Artz MUSC Surgical Society recognized Randy as its annual distinguished alumnus. At a luncheon in his honor, Dr. Baliga, our current Chairman, announced an endowment in his honor. The goal of the \$10M endowment is to provide the foundation for a program of leadership and professional service intended to become a model for surgical training nationwide.

Won't you join me in honoring Randy's contributions through supporting this Endowment so aptly named in his honor?

Sincerely,

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

Professor Emeritus of Surgery & Pediatrics
Chairman, Curtis P. Artz MUSC Surgical Society

President David Cole, M.D. toasts R. Randolph Bradham, M.D., 2017 Distinguished Alumnus during the Curtis P. Artz MUSC Surgical Society Distinguished Alumnus Luncheon



THE JOURNEY IS JUST BEGINNING

To date, contributions to the Endowment have helped create:

- The successful launch of a Center for Surgical Leadership

To enable this leadership transformation to continue, we must make new investments in the following areas:

- Simulation Development and Curriculum Development
- Surgical Education Technology
- International Resident Rotations
- Surgical Fellowship in Healthcare Leadership
- ACS Course for Residents "Surgeons as Educators"
- Endowed Chair in Surgical Leadership

We invite you to partner with us in leading the redesign of healthcare by giving to The R. Randolph Bradham M.D. Endowment for the Enhancement of Surgical Education at <https://connect2.musc.edu/surgery>.

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