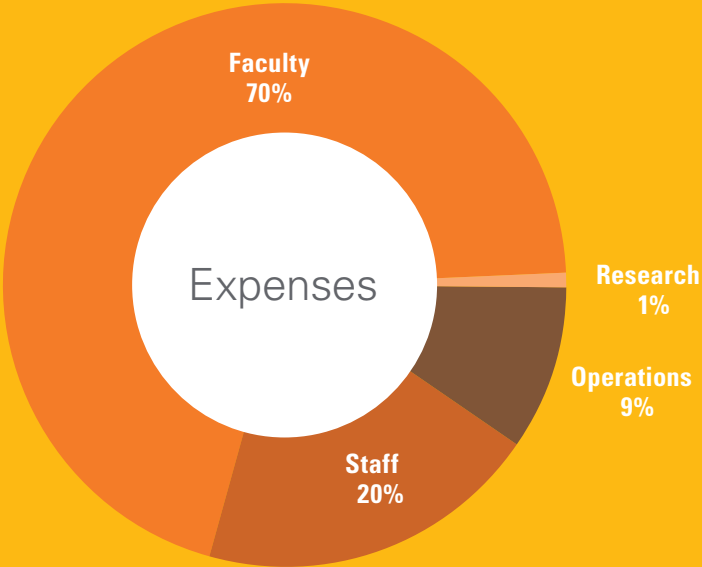
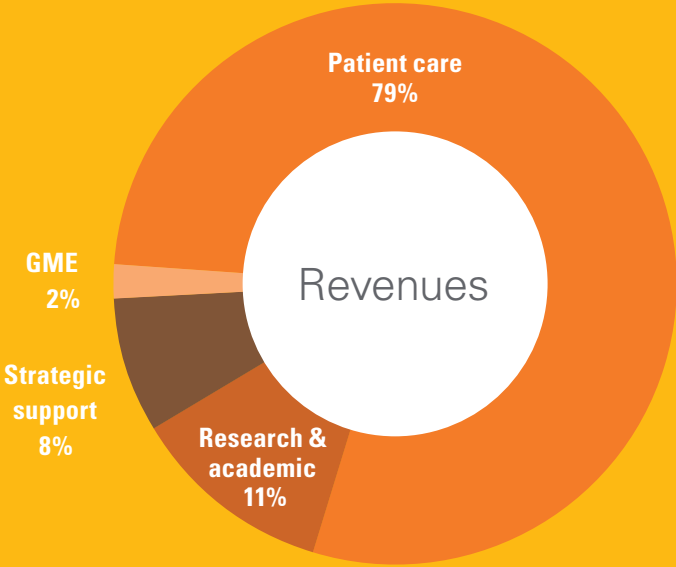


Department of Surgery 2018-19 Annual Report

By the numbers*



16

research awards



247

publications



75

clinical and
research faculty



417,445

wRVUs



15,342

operating
room cases



83,070

outpatient visits

Divisions


- Acute Care Surgical Services
- Bariatric and GI Surgery
- Cardiothoracic Surgery
- Colon and Rectal Surgery
- Surgical Oncology
- Oral and Maxillofacial Surgery
- Pediatric Surgery
- Plastic and Reconstructive Surgery
- Transplant Surgery
- Urology
- Vascular Surgery

*Calendar year 2019

Message from the chair

Dear colleagues:

We are pleased to present this annual report to celebrate our accomplishments. We have seen significant growth in our core missions of innovation, education and clinical programs. Our annual report celebrates our role in strengthening the fabric of VCU Health and Virginia Commonwealth University with interdisciplinary partnerships to provide safe, compassionate and patient-centered care. Our collaborations allow for differentiation of unique services and enable our vision as “The Future of Surgery Today.”



Vigneshwar Kasirajan, M.D.



Vigneshwar Kasirajan, M.D.
Stuart McGuire Professor and
chair, Department of Surgery

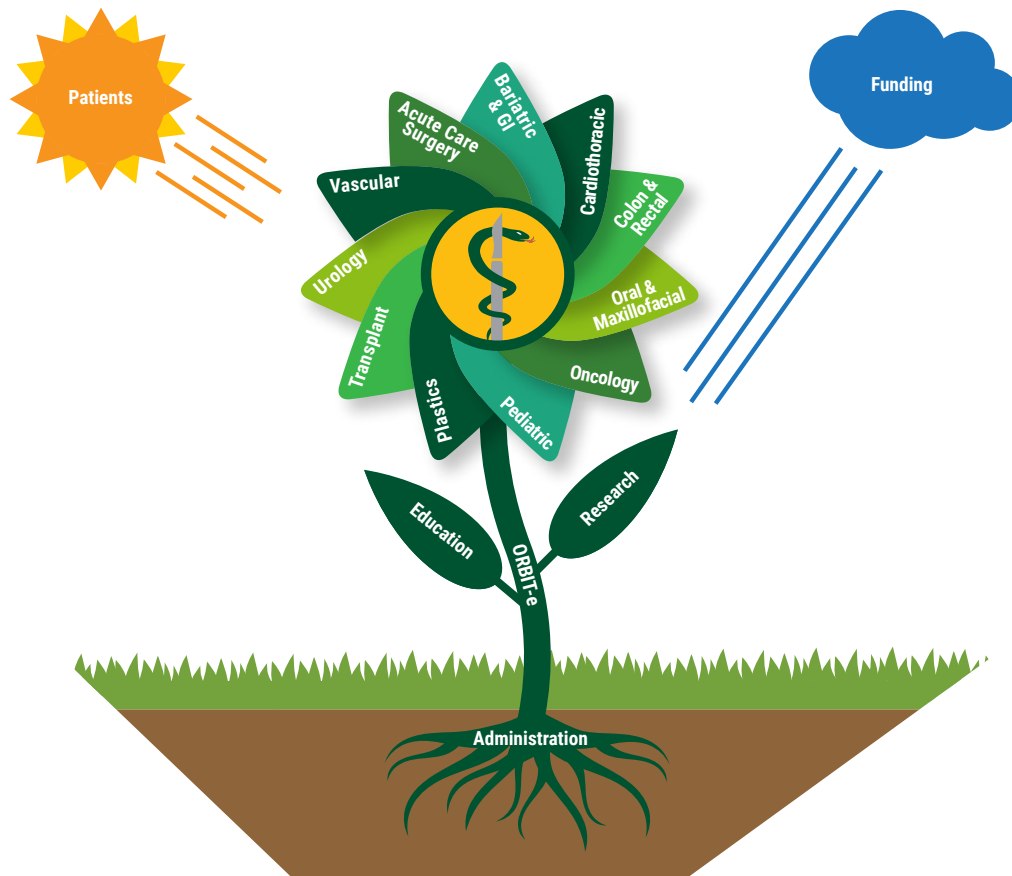


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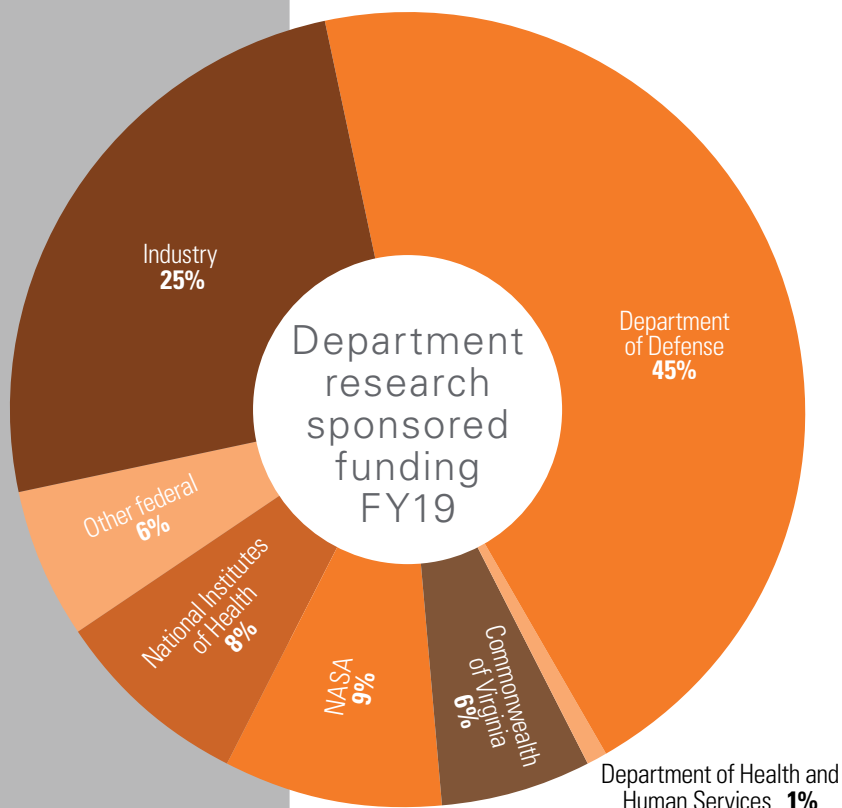
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Left to right: Global surgery co-directors, Sudha Jayaraman, M.D., and Edgar Rodas, M.D.; associate chairs for research, Martin Mangino, Ph.D., and Adam Klausner, M.D.

Office of Research, Biomedicine, Innovation & Technology

The Office of Research, Biomedicine, Innovation & Technology (ORBIT) supports and promotes research, innovation and global surgical activities within the Department of Surgery at VCU. Through coordinated avenues of basic science and transitional research/clinical trials, ORBIT helps develop true surgeon scientists. The office facilitates multidisciplinary research by matching surgeons with like-minded scientists in fields such as engineering, biochemistry, pharmacology, arts and outcomes research. These collaborations support academic surgeons in developing their ideas into testable hypotheses, experimental models and tangible outcomes resulting in market-based discoveries. In addition, ORBIT contributes to improving opportunities and partnerships in the areas of global surgery education, mentorship, research, skills training and clinical care. This infrastructure enables the recruitment of the top researchers in the field of surgery and ensures funding from federal and private resources.



HIGHLIGHTS AND ACHIEVEMENTS

- **In our 2018 annual report, we outlined the department's vision to build surgery's research portfolio. We have made significant progress toward this vision. In only one year, we:**
 - Expanded our research office
 - Received 16 grant-funded research awards totaling \$10.4 million
 - Received funding for 21 clinical trials totaling \$5.9 million
 - Published 152 articles in peer-reviewed educational, medical and research journals
 - Received \$650,000 in funding to support global surgery

The diversification of our funding makes the department more financially stable and increases sustainability of our research mission.



Global Surgery Program

The Department of Surgery established a program for global surgery at VCU in 2017 to enhance our global footprint. This program created formal recognition and support of faculty, residents and medical students to achieve excellence and equity in global surgical care through leadership and innovation. In addition, the program has five global surgery scholar tracks in which interested medical students, residents and fellows are mentored by VCU surgeons to work with various global surgery collaborations. In 2019 our first global surgery fellow, Ashley Rosenberg, M.D., successfully completed her first year.

HIGHLIGHTS AND ACHIEVEMENTS

- **VCU hosted the 2019 Virginia Global Surgery Symposium**, a collaboration of the VCU School of Medicine, the VCU Department of Surgery and the Global Surgery Student Alliance. Students, residents, faculty and staff across institutions, specialties and disciplines attended to learn about, collaborate in and advance the field of global surgery.
- **Our surgery teams provided care** for underserved populations in 11 countries around the world.

Our first global surgery fellow

Ashley Rosenberg, M.D., is a general surgery resident representing the VCU Department of Surgery as a Global Surgery Research Fellow through June 2020. As part of her fellowship, she is pursuing a Master of Public Health from Virginia Commonwealth University and is working on various global surgery projects. Continuing the work of VCU faculty member Sudha Jayaraman, M.D., Rosenberg worked in Rwanda from July 2018 through March 2019 on projects through Jayaraman's National Institutes of Health grant with Service D'Aide Medicale D'Urgence (SAMU), the Rwandan prehospital emergency medical service. She is teaching research methods to four groups and, together with SAMU, creating four research manuscripts to present at international conferences and in publications. Rosenberg created 42 checklists and protocols for conditions most commonly treated on the ambulance, as well as a new patient run sheet and database for recordkeeping. Rosenberg took part in teaching an emergency pediatric care course and emergency obstetric and neonatal care course for Rwandan prehospital staff, doctors and nurses. She worked with the Department of Surgery at CHUK hospital in Kigali, Rwanda, to create a surgery database and case log system for their residents. She collaborated with the Emergency Department at CHUK hospital to create a code board to improve the flow of running codes. She mentored University of Rwanda medical students and worked with the University of Rwanda Surgical Student Society on a variety of programs such as career fairs, CPR and surgical skills workshops. Together with Jayaraman, Rosenberg organized Rwanda's first National Trauma Symposium. She presented her work at the African Conference of Emergency Medicine and College of Surgeons of Central, Southern and Eastern Africa International Conferences. In total, she is working on more than 15 manuscripts.

Education

The Department of Surgery's education team is committed to exemplary clinical care, advancement of education and serving as stewards of our traditions of compassionate and competent care. The department equips young physicians with the skills of inquiry, analysis and communication to achieve roles of leadership as lifelong scholars and clinicians. This year we've continued to offer quality programs to our medical students with additional labs for the Plastics Program, advanced hands-on trainings for our general surgery trainees and cost-share agreements for cadaveric labs with emergency medicine, pulmonary critical care, OB-GYN and anesthesia.

HIGHLIGHTS AND ACHIEVEMENTS

- **In June 2019, six fellows and nine residents graduated.** We successfully recruited six fellows and 16 residents across the department's three residency programs and seven fellowship programs to total over 70 trainees.
- **In 2018 we had a 100% board pass rate in the following programs:** general, plastics, and urology residency, cardiothoracic, critical care and vascular fellowship.
- **In January 2019, the VCU Center for Human Simulation and Patient Safety was awarded full accreditation by the American College of Surgeons as an Accredited Education Institute for the next five years.** This accreditation supports research and collaboration with other accredited institutions to continue identifying best practices and developing clinical education.
- **The burn, cardiothoracic surgery, critical care, MIS laparoscopic surgery, surgical oncology, transplant surgery and vascular surgery fellowship programs all filled their positions for 2020.** The trainees in surgery and surgical subspecialties had over 50 presentations of their work nationally and internationally.



Doris Farquhar
Director, surgical
education programs

71

residents
and fellows

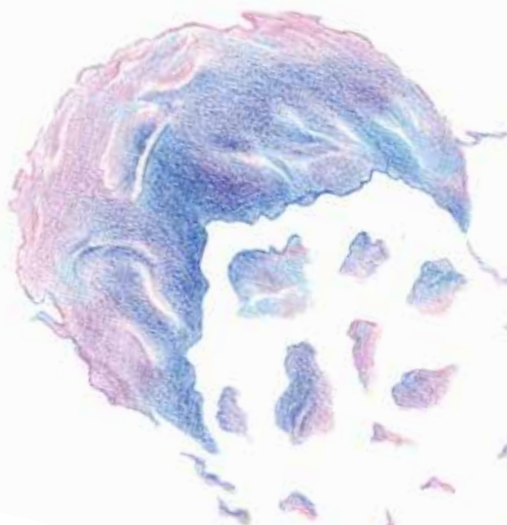


Breast Health Program

The Breast Health Program within VCU Massey Cancer Center offers a full continuum of care for patients with breast cancer and breast disorders. Customized clinical plans tailored to unique individual needs of patients by an interdisciplinary team of specialists contribute to the program's compassionate care. Through cutting-edge research initiatives and a high level of expertise, the program pioneers new and more effective ways to detect, treat and prevent breast cancer. Massey offers a level of expertise only found at the top 4% of cancer centers across the country recognized as National Cancer Institute-designated cancer centers. Massey is the only such center in the Richmond region and one of two in the state designated by the NCI.

HIGHLIGHTS AND ACHIEVEMENTS

- **Breast Reconstructive Awareness Day was held Oct. 16, 2019.** BRA Day was a joint event with the Division of Plastic and Reconstructive Surgery and Massey to celebrate breast cancer survivors and improvements in reconstructive surgery
- **A global clinical trial found that a drug called trastuzumab emtansine reduces risk of cancer recurrence by 50%.** This clinical trial, named KATHERINE and led by Charles Geyer, M.D. (internal medicine), sought to determine the drug's effect on HER2-positive breast cancer treatment.



Kandace McGuire, M.D.
Section chief,
breast surgery

357
breast
OR cases



Children's Surgery Program

Children's unique surgical needs and concerns are the focus of the children's surgery team of general surgeons. They diagnose, treat and provide follow-up care for a wide range of pediatric surgical patients at the Children's Hospital of Richmond at VCU. From routine, same-day outpatient surgeries to complex, delicate procedures, our surgeons use current, effective and minimally invasive surgical methods, including robot-assisted surgery to minimize pain, scarring and blood loss. The faculty within the Division of Pediatric Surgery delivers committed and personal care at CHoR, MCV hospitals and three surgical clinics spread throughout the greater Richmond area. In addition, they serve in prominent roles in clinical education nationally and participate in surgical services in underserved areas internationally.

HIGHLIGHTS AND ACHIEVEMENTS

- **Broke ground in June 2019 on the CHoR inpatient facility**, which will have 86 private rooms for acute and intensive care.
- **Retained designation as a Level I pediatric trauma center.** This designation, assigned every three years by the American College of Surgeons, means CHoR is one of only 39 centers across the country that demonstrate the highest level of pediatric patient care, education and research.
- **Only hospital in Virginia to rank in the nephrology and pulmonology categories** of the U.S. News & World Report's Best Hospitals list.
- **Expanded Pediatric Intensive Care Unit to have larger rooms with private bathrooms and space for the family.** Each room will be equipped with the latest monitoring system and booms that allow care staff 360-degree access to the patient.



Bruce Rubin, M.D.
Physician-in-chief, Children's
Hospital of Richmond at VCU



David Lanning, M.D.
Co-surgeon-in-chief, Children's
Hospital of Richmond at VCU



Tony Herndon, M.D.
Co-surgeon-in-chief, Children's
Hospital of Richmond at VCU

2,691
pediatric
OR cases



Evans-Haynes Burn Center

The Evans-Haynes Burn Center is the oldest civilian burn center in the United States, with more than 70 years of dedicated burn care in Virginia and beyond. As the only burn center in the commonwealth having both state burn and national American Burn Association designations, Evans-Haynes provides comprehensive burn care to both adult and pediatric patients. Through multidisciplinary care and integration with the trauma division, Evans-Haynes Burn Center offers specific services, including laser therapy for pediatric patients. Additional features of a patient-centered approach include a kids' playroom and tutors so patients can successfully continue their education while being treated.



Michael Feldman, M.D.
Medical director,
Evans-Haynes Burn Center

HIGHLIGHTS AND ACHIEVEMENTS

- **FedEx donated a conference room used for education on the burn unit** in appreciation for the care their employee received when he was burned while on the job.
- **Provides the only burn fellowship training program in the commonwealth.**
- **Awarded grants to explore the use of virtual reality in burn patients** receiving wound care, to help reduce narcotic medication use and improve safety.
- **Won best in category for psychosocial presentation on mediational models of pain, mental health and daily functioning in burn patients** at the American Burn Association meeting in Nevada in April 2019.
- **Partnered with the PIKE fraternity at VCU for the Fireman's Challenge to raise funds for education and research support at the burn center.** The 2018 challenge raised over \$33,000, for a total of more than \$100,000 raised in the past eight years.

567
burn
admissions



Hume-Lee Transplant Center



Marlon Levy, M.D.
Division chair,
transplant surgery

434
total
transplants

Having one of the first solid organ transplantation programs in the country and as the site of Virginia's first kidney and liver transplants, the Hume-Lee Transplant Center continues to be a pioneer in comprehensive transplantations, including pancreas, liver and kidney for both children and adults. The research and patient-centered focus of the interdisciplinary team has allowed the center to consistently handle complex cases, increase donor pools and boast a survival rate far higher than the national average. Hume-Lee also serves as the home for the islet cell lab, where a diseased pancreas is removed and its insulin-producing cells are extracted and infused into the patient's own liver, allowing it to begin producing insulin. The center also includes laboratories dedicated to transplant innovation.

HIGHLIGHTS AND ACHIEVEMENTS

- **Chandra Bhati, M.D., became the first person on the East Coast to complete robotic-assisted kidney implantation** using the da Vinci Surgical System.
- **In 2019, of the 434 total organs transplanted, 304 kidneys were transplanted, including simultaneous kidney and pancreas transplants, shattering 2018's record of 202.**
- **First site to participate in the TransMedics system trial in Virginia, and one of eight hospitals nationally.** This system preserves and stores organs with warm perfusion, allowing for faster and safer transplants.
- **Expanded donor pools exponentially through clinical trials where hepatitis C-infected kidneys were transplanted into recipients without hepatitis C, after which the virus was cured.**





Hume-Lee Transplant Center offers HIV-positive patients high-quality kidney care

Thousands of patients across the nation need life-saving kidney transplants. Researchers continuously search for ways to expand the donor pool and create opportunities to save more lives.

VCU Medical Center is participating in a clinical research trial to explore one such opportunity: kidney transplants from HIV-positive donors to HIV-positive patients.

Many patients living with HIV require kidney transplants due to the long-term effects of their treatment. For many years, only HIV-negative individuals could donate organs to HIV-positive patients. In 2013, the federal HIV Organ Policy Equity Act was signed into law, allowing for research into transplanting organs from HIV-positive donors into HIV-positive recipients.

“Utilization of HIV-positive donor kidney transplants for HIV-positive patients can significantly increase the organ pool for HIV-positive patients,” says Gaurav Gupta, M.D., associate professor and program director of the transplant nephrology fellowship at VCU Medical Center. “This can reduce the wait time for these patients and reduce the significant risk of death they face while on dialysis.”

VCU Health was approved to participate in research under the HOPE Act in September 2016. Today, the Hume-Lee Transplant Center is at the forefront of new treatment as one of 25 transplant centers in the U.S. participating in a clinical research study for HIV-positive patients with end-stage renal disease. The study seeks to learn whether kidney transplants from deceased HIV-positive donors are as safe and effective in HIV-positive recipients as transplants from deceased HIV-negative donors. To date, more than 80 HIV-positive patients nationwide have received kidney transplants, including VCU Health’s first transplant of this kind in June 2018.

“Utilization of HIV-positive donor kidney transplants... can significantly increase the organ pool for HIV-positive patients.”


“Our first patient has excellent kidney function and echoes experiences reported by the other few centers across the country who are doing these transplants,” Gupta says. “Our early experience, if proven safe, can also be applied to other organ transplants — liver, heart, pancreas and lungs.”

Massey Cancer Center


Massey Cancer Center is Virginia's leading resource for colorectal cancer screening and care. Our team provides comprehensive, coordinated and highly specialized care for patients with colon and rectal cancers, and performs therapeutic colonoscopies for patients with precancerous polyps. Massey is the only cancer center in the Richmond region and one of only two in the state designated by the National Cancer Institute.

HIGHLIGHTS AND ACHIEVEMENTS

- **Identified a specific protein (TGF- β) that slows the formation of pancreatic cancer cells.** TGF- β initiates a cell signaling pathway and stimulates the growth of prostate cancer cells, allowing for the potential development of immunotherapies that can slow, alter or prevent the formation of pancreatic cancer cells.
- **First hospital in Virginia to treat a patient with the FDA-approved CAR-T immunotherapy,** reducing hospital stay to one week, as opposed to 6 months with standard chemotherapy treatments, which effectively treats advanced blood cancers in both children and adults.
- **Discovered a new form of immune cell that potentially could be used to inform the development of a novel cancer vaccine.**
- **Developed the world's most advanced drug delivery system with the highest tumor-targeting ability.** This drug delivery platform travels through cellular systems undetected and performs functions that conventional vehicles would not be able to do.
- **Brian Kaplan, M.D., supported Project Purple through participation in the NYC Marathon to "find a cure for pancreatic cancer and to improve the lives of patients through support, hope and compassion."** Funding received helps support critical pancreatic cancer research as well as support existing patients through the Patient Financial Aid Program.

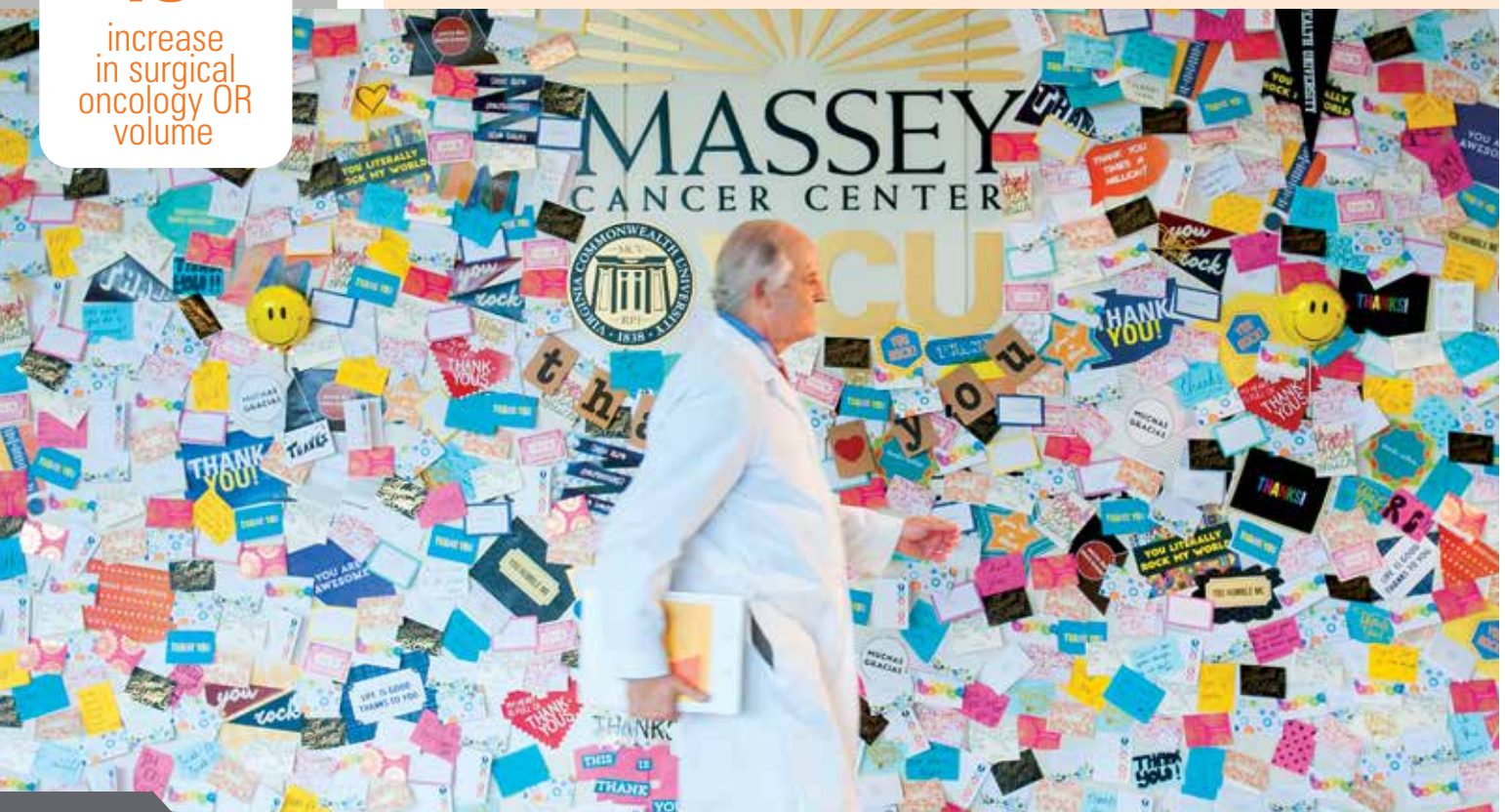


Harry Bear, M.D.
Division chair,
surgical oncology



Robert Winn, M.D.
Director, Massey
Cancer Center

10%
increase
in surgical
oncology OR
volume



Oral and Maxillofacial Surgery Program

For over 60 years, the Division of Oral and Maxillofacial Surgery has committed itself to the high-caliber education of dental students through its residency program and state-of-the-art patient care delivered to those with diseases, injuries and defects involving the hard and soft tissues of the head, mouth, teeth, gum, jaws and neck. Through innovative curricula and enhanced scholarly activity, the division provides education on practices encompassing the contemporary scope of oral and maxillofacial surgery to provide the highest-quality specialized patient care. Housed in the School of Dentistry, the Division of Oral and Maxillofacial Surgery is nationally and internationally recognized for its commitment to excellent patient care, innovative teaching, scholarly contribution to the field, and service to the specialty and the oral and maxillofacial surgery community at large.

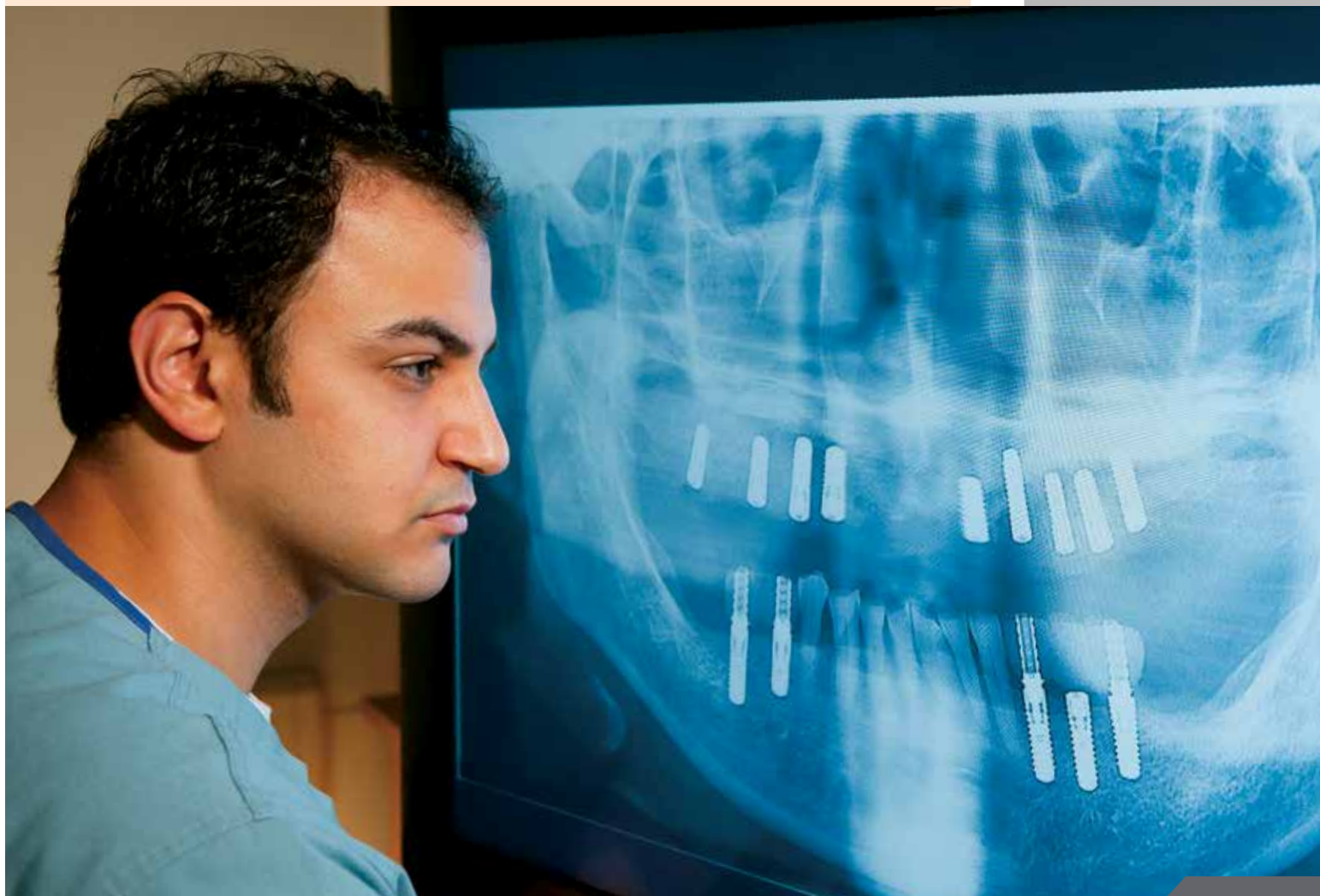


Omar Abubaker, D.M.D.
Division chair, oral and
maxillofacial surgery

HIGHLIGHTS AND ACHIEVEMENTS

- **Daniel Laskin, D.D.S.,** received the **Distinguished Dental Editor Award from the American Dental Association and the American Association of Dental Editors and Journalists, and the American Dental Association Award of Excellence.** He also completed 14 peer-reviewed manuscripts.
- **Dean M. DeLuke, D.D.S.,** professor and director of predoctoral oral and maxillofacial surgery received the **Daniel M. Laskin Award for Outstanding Predoctoral Educator,** a national award conferred by the American Association of Oral and Maxillofacial Surgeons.

556
OR cases





Project Empower

On the night Nakisha Spellman was beaten, strangled, stabbed, dragged through her home and thrown down the stairs by her partner, the 24-year-old Richmond resident hobbled to her neighbor's house for refuge. The next morning, in such severe pain that she was unable to stand, she got a ride to VCU Medical Center.

Emergency medicine physicians treated Spellman's physical wounds, but like other victims of sexual and domestic violence, she had deeper wounds. That's where Project Empower stepped in.

Project Empower is an advocacy program under the Injury and Violence Prevention Program that has provided counseling, case management, court advocacy and a variety of other services to victims of intimate partner violence to more than 200 patients since January 2017. For medical centers without such programs, the care stops where the medical intervention ends, which is why programs like Project Empower are important.

The day after Spellman's attack, manager Maria Altonen and intern Dionne Greenhill evaluated the situation, provided Spellman with the support she needed and helped plan the next steps to ensure her safety. However, when it became known that Spellman's assailant had been

released from jail, the plan changed. Project Empower staff devised a new plan to get Spellman, escorted by VCU Police, to a protective shelter where she and her children stayed for the next few weeks.

"They provided the shelter, protection, and emotional and mental support I needed to rebuild myself."

There, Starshema Myles, another Project Empower advocate and the survivor of an attempted murder, purchased food, clothing, gift cards and a journal for Spellman to help with her emotional healing. Myles attended court proceedings with Spellman, who was 15 weeks pregnant at the time of the attack, and helped her find a source of continued prenatal care. When her time at the shelter came to an end, Project Empower assisted Spellman with finding a safe place to live.

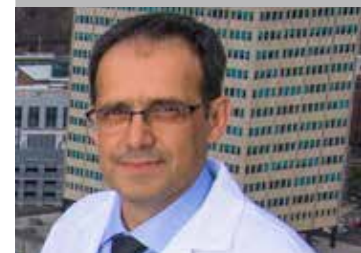
"I am truly grateful for everyone at Project Empower," Spellman says. "I wouldn't have gotten through this without them. They provided the shelter, protection, and emotional and mental support I needed to rebuild myself."

Trauma and Center for Trauma and Critical Care Education

VCU Medical Center is a Level I trauma center verified in adult, pediatric and burn trauma care, a designation held since 1981. Our comprehensive, multidisciplinary team is ready around the clock to handle complex trauma cases and deliver the best possible care to our patients. The trauma department is home to the Center for Trauma and Critical Care Education and the Injury and Violence Prevention Program. CTCCE provides clinical education and training to providers, first responders and community members. IVPP provides evidence-based, targeted education and intervention with the mission of reducing and preventing injuries throughout the central Virginia region.



Alan Rossi, M.D.
Medical director, CTCCE



Michel Aboutanos, M.D.
Division chair,
acute care surgical services

HIGHLIGHTS AND ACHIEVEMENTS

- **VCU Medical Center was reverified by the American College of Surgeons as a Level I trauma center for the fifth consecutive time**, a designation proving capability of providing care for every aspect of injury.
- **Held the inaugural prehospital point-of-care ultrasound course in spring 2018.** This course offers education to paramedics who desire a functional knowledge of ultrasound use in the prehospital setting.
- **Selected to beta-test the PHTLS ninth edition course for the National Association of Emergency Medical Technicians**, making VCU the only site nationwide to provide feedback.
- **CTCCE and the Central Virginia Coalition collaborated to "Stop the Bleed" with trainings for bleeding control to cultivate efforts for bystander empowerment in emergency situations.** The initiative has hosted nearly 30 courses and train-the-trainer programs, training a total of 1,150 participants.
- **Developed and deployed four new continuing education courses for prehospital providers in Rwanda.**
- **Partnered with the Medical College of Wisconsin, Ohio State University and Emory University** on a multi-institutional trial of the injured trauma survivor screener objective.
- **Doubled the number of patients (220 to 447) served by Project Empower**, a multidisciplinary initiative enhancing prevention and intervention services to those who have or are experiencing intimate partner violence, domestic violence or sexual violence.
- **Started a program called A Matter of Balance**, which focuses on fall prevention for older adults in the community.



3,105
adult trauma
admissions

Pauley Heart Center

Pauley Heart Center focuses on saving and improving the lives of people with heart disease. Specific services include inpatient and outpatient care ranging from noninvasive cardiology to heart transplantation. Patients have access to interdisciplinary teams, including cardiac, thoracic and vascular surgeons, as well as interventional cardiologists and cardiac imaging specialists. The center trains cardiologists to serve as leaders in medicine. We are also leaders in research, with an active cardiovascular disease research program that furthers knowledge of heart disease, its treatments and its cures. Thousands of patients trust our faculty each year with their heart health. We return that trust with more than four decades of knowledgeable, compassionate cardiac care using advanced procedures and treatments.



Greg Hundley, M.D.
Director, Pauley Heart Center



Kenneth Ellenbogen, M.D.
Division chair, cardiology



Anthony Cassano, M.D.
Division chair,
cardiothoracic surgery



Mark Levy, M.D.
Division chair, vascular surgery

HIGHLIGHTS AND ACHIEVEMENTS

- **VCU Medical Center is one of the few hospitals in central Virginia to offer transcatheter aortic valve replacement**, a minimally invasive procedure that improves outcomes for higher-risk patients with severe aortic stenosis who cannot undergo open-heart surgery.
- **VCU Medical Center has become a regional leader in ECMO (extracorporeal membrane oxygenation), which provides cardiac and respiratory support to patients, allowing time to transport from longer distances.** The VCU team treats 40 to 60 adults every year, and with ECMO, the neonatal and pediatric ICUs each care for an additional five to 10 patients annually.
- **Results of a heart failure drug pre-clinical study on preventive drug post-acute myocardial infarction gained national attention** and was published in the Journal of the American College of Cardiology.
- **VCU Medical Center still remains one of the few centers in the world that performs the total artificial heart implant.** A total artificial heart provides clinical stability for a patient until a donor heart becomes available.
- **Performed the 600th heart transplantation** and is steadily increasing cardiac, VADS and transplant case volumes.
- **A partnership between VCU Health and Bon Secours seeks to expand and provide high-quality, comprehensive thoracic surgical services to the greater Richmond area.**

Pauley Heart Center procedure volumes 2019

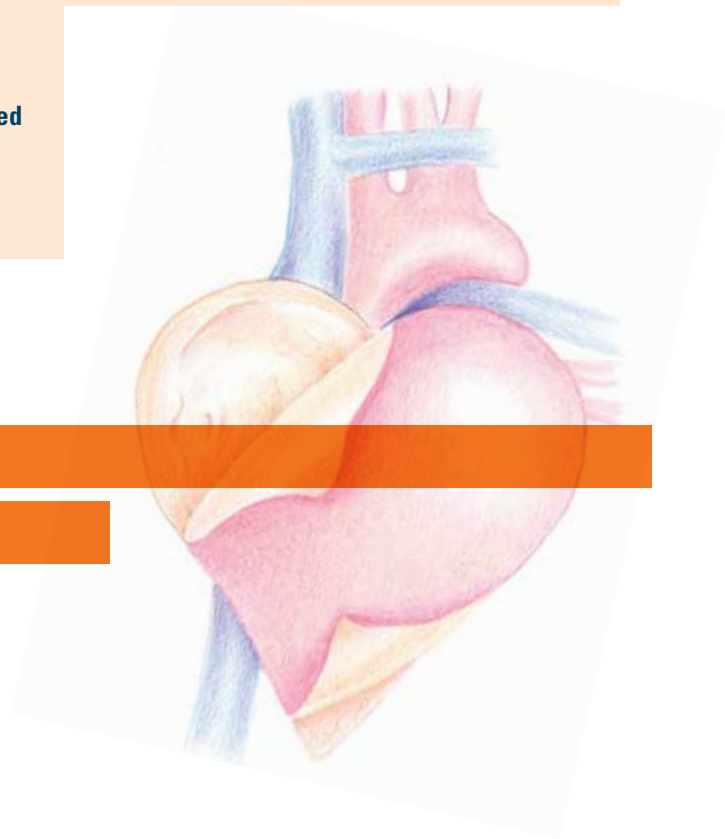
4,173
Cath Lab

2,196
EP Lab

862
Cardiac OR

755
Vascular OR

617
Thoracic OR



Urinary Program

The Urinary Program at VCU represents the best and brightest urologists from multiple subspecialties, including urologic oncology, robotic surgery, male infertility, andrology, reconstructive surgery, pediatric urology, neurourology and pelvic reconstructive surgery.

The program is committed to a standard of excellence in surgery and education through active involvement in resident and faculty research presentations both nationally and internationally. The tradition of innovative and high-quality care is carried out through patient-centered delivery and state-of-the-art laparoscopic and robotic surgery.



Lance Hampton, M.D.
Division chair,
surgical urology

HIGHLIGHTS AND ACHIEVEMENTS

- **Successful clinical partnerships with the Urologic Tumor Center at Massey Cancer Center.** This collaboration assembles expertise and research from multiple disciplines to provide the highest-quality diagnosis and treatment of prostate and other genitourinary tumors.
- **Lance Hampton, M.D., and Riccardo Autorino, M.D., represented the Division of Urology in South Korea at the 38th Congress of the Société Internationale d'Urologie,** presenting on "Novel Intraoperative Imaging Modalities During Robotic Surgery" and "Robotic Partial Nephrectomy: How to Optimize Renal Function Preservation."
- **No. 20 urology program in the nation as ranked by U.S. News & World Report.**
- **Partnership established with the Italian Society of Urology and the American Urological Association.** Riccardo Autorino works collaboratively with Società Italiana di Urologia (where Autorino completed his residency) on research by sending an Italian student to complete a year of research here at VCU.

1,449
urology
OR cases



Weight Loss Program



Guilherme Campos, M.D.
Division chair, bariatric
and GI surgery

The expert surgeons at the VCU Health Surgical Weight Loss Center lead a multidisciplinary team of specialists, therapists and consultants, concentrating on physical, nutritional and emotional well-being and success before, during and after surgery. To date, over 5,000 people have benefited from weight-loss surgery at the center. Bariatric and gastrointestinal surgery also boast the VCU Minimally Invasive Surgery Center, a multidisciplinary program designed to offer safe and effective treatments for biliary, splenic, liver and pancreatic diseases and abdominal wall hernias.

HIGHLIGHTS AND ACHIEVEMENTS

- **Established monthly support groups and online portals for quick provider access to maintain continuous support and strong outcomes.**
- **The first center in Virginia to perform laparoscopic gastric bypass.** Over the years, we have performed more than 5,000 weight-loss surgeries.
- **Recognized and accredited as a Comprehensive Center by the American College of Surgeons Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program,** an accreditation given every three years recognizing a high standard of bariatric clinical practice.



Enhanced Recovery After Surgery Program

The Enhanced Recovery After Surgery Program is one of the VCU Health System's best-kept secrets and largest clinical differentiators. Championed by the Office of Clinical Effectiveness, ERAS is a series of evidence-based elements designed to improve patient outcomes following surgery. The across-the-care-continuum joint venture between surgery, anesthesiology, nursing, diagnostics and therapies, administration and the patient was established to improve outcomes and reduce recovery time. By focusing on patient care, collaboration and evidence-based research methods, providers are better able to provide the best care to each patient. Providers have witnessed firsthand the results of preoperative nutrition and early ambulation and are now suggesting that patients drink and eat lightly before surgery, and mobilize the morning after surgery. This approach has already seen significant benefits, leading to decreases in postoperative complications and mortality, opioid use and hospital length of stay.



Jaime Bohl, M.D.
Medical director, ERAS

HIGHLIGHTS AND ACHIEVEMENTS

- **VCU Health System implemented full ERAS across five divisions:** bariatric, colorectal, gynecological oncology, orthopaedics and spinal surgery.
- **In November 2018, the ERAS team hosted the first World Congress on ERAS in Pediatrics.** Principles of care were reviewed, and pediatric ERAS guidelines were established for global use.
- **Operating room morphine-equivalent anesthetic usage decreased 35% between calendar years 2017 and 2018,** while case volume increased by 2% with the implementation of ERAS.
- **Length of stay for ERAS-implemented gynecological oncology patients has decreased by 16% since FY 2018.**



Partnership with Community Memorial Hospital

Virginia Commonwealth University and VCU Health leadership cut the ribbon Oct. 14, 2018, for the new VCU Health Community Memorial Hospital in South Hill, Va. The new building is the first medical facility erected in South Hill since 1954. Inside are 70 private patient rooms, three operating room suites, a cesarean section suite, a 16-bay emergency department and an obstetrics department with four labor, delivery, recovery and postpartum rooms.

Surgeons from the Division of Vascular Surgery and the Department of Urology rotate through CMH. Our partnership with CMH increases our ability to provide increased care to the rural areas in southern Virginia.

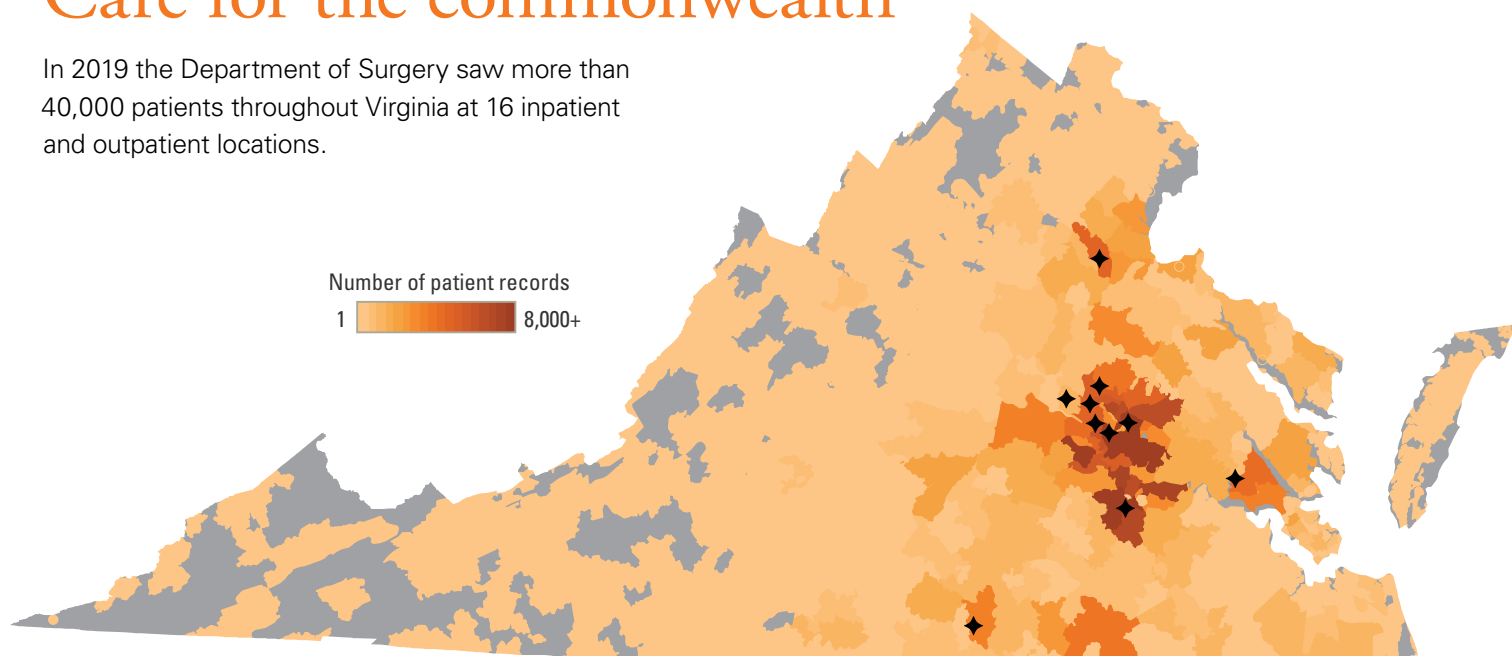
Since fall 2018, the VCU Division of Vascular Surgery has been working monthly at CMH. The division now provides both outpatient evaluation services and outpatient procedures there. The need for specialty-trained vascular surgical care is significant in the South Hill area, particularly related to abdominal aortic aneurysms, peripheral artery occlusive disease and surgery for dialysis access.



The full spectrum of vascular disease can be assessed at CMH, and many patients requiring intervention can be treated on-site in the new CMH Catheterization Laboratory and new operating rooms. Patients requiring more tertiary procedures have been treated at VCU Health System's MCV campus but can be cared for longitudinally at CMH.

Care for the commonwealth

In 2019 the Department of Surgery saw more than 40,000 patients throughout Virginia at 16 inpatient and outpatient locations.





Partnership with Hunter Holmes McGuire VA

The Hunter Holmes McGuire VA Medical Center is an integral part of our department's surgical training. Department of Surgery residents and fellows receive a unique opportunity to deliver continued patient care by rotating at the VA and providing their expertise to our veterans. In addition, many VCU faculty and VA faculty have affiliations with each hospital to increase collaboration between the two locations.

Quality scholarship

The Chief Residency in Quality and Patient Safety program is a national VA educational program supported by the Office of Academic Affiliations. It includes training in quality improvement, patient safety, and clinical and educational system redesign. McGuire VA Medical Center has been involved in this program in the departments of Internal Medicine and Anesthesiology. After the OAA recently approved a surgical CRQS program that could be filled by a resident during a gap year, the Department of Surgery at McGuire VAMC was awarded a program in July 2018. Drs. Michael Amendola, Thomas Miller and Jeannie Rivers have served as the primary faculty mentors.

As our inaugural fellow, Dr. Wayne Tse has participated in the well-organized national curriculum, collaborating with and learning from experts in the fields of quality and patient safety. Tse has been involved in over a dozen projects thus far in the VA Department of Surgery, as well as within the medical center at large. Many projects span multiple departments such as anesthesiology, nursing, sterile processing, social work and others. In addition, Tse has presented four Institutional Review Board-approved protocols at local and national levels. While the CRQS program is funded by the OAA as a one-year fellowship, Tse has acquired additional funding for the 2019-20 academic year to continue to be involved in patient safety and quality projects at McGuire VAMC.

Administration team

The Department of Surgery administration provides support and resources to team members across the department in their mission to provide excellent patient care, conduct innovative research and train the next generation of surgeons. Each member of the administrative team provides unique resources and guidance as we work together to further the growth and mission of surgery at VCU.



Jessica Carey
HR coordinator



Mena Dous
Associate administrator,
bariatric and GI, transplant



Doris Farquhar
Director, surgical
education programs



Katie Golob
Interim administrator



Tina Hamlet
Associate administrator,
plastics and urology



Kyra Houck
Associate administrator,
pediatric surgery



Biliana Ivanova
Associate administrator,
colon and rectal, and oncology



Amanda Jabri
ORBIT administrator



Nikki Meador
Operations manager



Angel Medina
Associate administrator,
cardiothoracic and vascular



Grayson Page
Business analyst



Wanda Peebles
Financial reporting specialist



Jason Prillaman
Associate administrator,
finance and clinical operations



Doris Rice
Financial manager



Adult Outpatient Pavilion
Projected opening spring 2021

The Future of Surgery Today



Children's Hospital of Richmond at VCU
Projected opening winter 2022



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