

PULSE

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VOLUME 20, ISSUE 1

PHILANTHROPY IN ACTION AT UNIVERSITY OF VIRGINIA HEALTH SYSTEM



UVA's newest outpatient facility will provide our youngest patients and their families with expert care under one roof.

PHOTOGRAPH © JENNIFER WATSON

HEALTHIER EVER AFTER

Battle Building at UVA Children's Hospital Opens Its Doors

SINCE THE OPENING OF THE BATTLE BUILDING AT UVA Children's Hospital this June, families across our region have been able to access superior, coordinated care, all under one roof.

The doors to UVA's newest outpatient facility opened with a two-day celebration. Families were able to tour the building, see the clinics, and meet healthcare providers and pet therapy dogs.

The Battle Building houses pediatric primary care, dozens of pediatric specialties, a maternal and fetal medicine clinic, pediatric outpatient rehabilitation services, the teen and young adult health center, outpatient surgery, and a clinical trials suite.

"The clinical trials suite is a unique space, as it lends itself to real-time pediatric research," notes Jim Nataro, MD, director of children's services and



PHOTOGRAPH © COE SWEET

chair of the Department of Pediatrics. "The building represents our focus on providing world class care for kids today, while the clinical trials space represents our commitment to the treatments of the future."

Continued on page 2



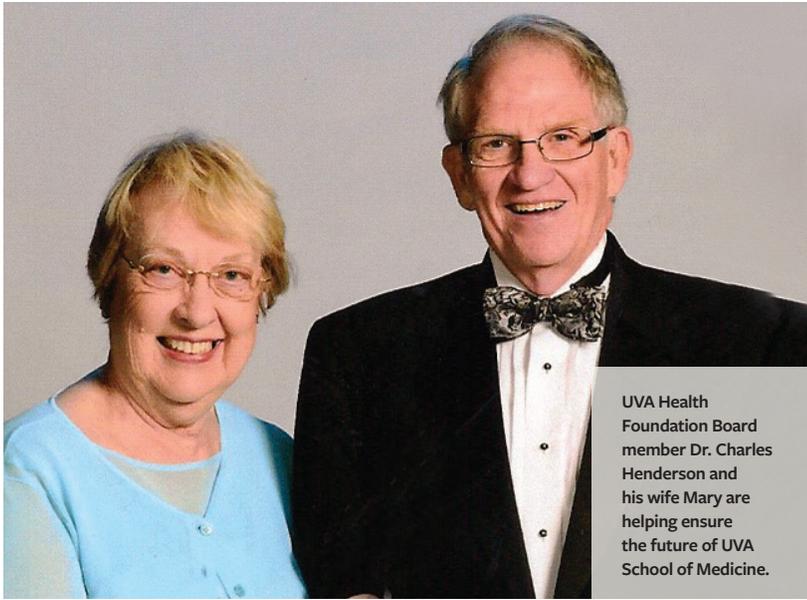
Our research will forge the path to new treatments ... allowing children to lead more normal lives.



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FUNDING FACULTY EXCELLENCE IN MEDICINE



D R. CHARLES H. HENDERSON III (BS '61, Med '65, '72) is the kind of person who listens and learns. As the Medical School Foundation's representative to the University's Council of Foundations, he heard about the pressing need to plan for the generational turnover of faculty as members of the Baby Boom reach retirement age.

Now that this generational change is upon us, Henderson—a retired radiologist from Harrisonburg, Virginia, and a

member of the UVA Health Foundation Board—has chosen to act by creating the Endowment for Faculty Excellence in the School of Medicine. His purpose: to give the dean the resources needed to recruit or retain outstanding faculty members.

“With every medical school in the country experiencing the same crisis, the competition for the best faculty members is intense,” he says. “I want to help make sure that we can secure the quality of faculty we need.”

“Dr. Henderson's generous commitment to the School of Medicine will give

deans the flexibility to act quickly to secure extraordinary faculty members,” says Executive Vice President for Health Affairs Richard Shannon, MD. “The impact of this gift will be felt for years to come.”

Henderson thought carefully about making the fund discretionary. “I didn't want to lock future deans into any particular course of action,” he says. “I want them to be able to respond to opportunities as they occur.” Resources from the fund can be used for a variety of purposes, including supplementing a salary or supporting a research program.

Henderson has another reason for supporting faculty—the multiplier effect. “When you support great faculty members and encourage their commitment to the University, you influence generations of students,” he says.

This is not to say that Henderson does not value scholarships. He is the class agent for the Class of 1965, which is celebrating its 50th reunion next spring by funding a scholarship for a medical school student. In addition, the class plans to endow the White Coat Ceremony.

Henderson has made a series of generous gifts to the University including a scholarship for students at the University of Virginia's College at Wise that he endowed with his wife, Mary. But as he says, “Ultimately, an institution's ability to affect lives depends on the quality of its faculty.” ●

Healthier Ever After—continued from page 1

The clinical trials suite is an integral part of the Child Health Research Center (CHRC), a unique collaborative that brings together scientists and clinicians to pioneer new treatments, therapies, and cures for childhood illnesses. Further, children can enroll in clinical trials and connect with CHRC researchers, all without having to leave the Battle Building.

“Our research will forge the path to new treatments and therapies, allowing children to lead more normal lives,” Ariel Gomez, MD, director of the CHRC, says. Gomez adds that nothing quite like the CHRC collaborative currently exists in Virginia.

CHRC researchers are focusing on health issues ranging from asthma to diabetes, obesity, cancer, and premature birth, searching for the underlying mechanisms of such widespread childhood conditions.

The Battle Building was made possible by the generosity of the Ivy Foundation and widespread community support. ●



SUSAN KOOLS, PHD, RN, FAAN



BUILDING DIVERSITY IN NURSING

Nursing educators across the country recognize the need for cultivating greater diversity in the nursing profession. That's the challenge Susan Kools, PhD, RN, FAAN, will take on as director of Inclusion, Diversity and Excellence at UVA School of Nursing.

Kools, who also serves as the Madge M. Jones Professor of Nursing, will implement programs to shape a student body and faculty that more closely resembles the diverse population nurses serve today.

"It is crucial for nursing to build a workforce from all backgrounds who practice, educate, research, and influence policy to meet the health needs of our increasingly diverse population," Kools says. "By diversifying nursing, we are collectively exposed to the breadth of backgrounds, experiences, and perspectives that help us provide excellent, culturally humble, and appropriate care. It is a key strategy to eliminate health disparities and achieve health equity for our patients."

Kools was one of the first scholars to research identity development among adolescents in foster care, studying ways to help them form positive, meaningful social relationships. She also worked closely with policymakers, advocating for greater support for young people aging out of the foster care system. An internationally known expert on qualitative research methods and dimension analysis, Kools will teach UVA PhD students to hone their own qualitative research skills in order to make a difference for society's marginalized populations.

"Nurses have a holistic focus on health that goes beyond the physical to looking at mental and emotional wellbeing in a social context," Kools says. "It's important to understand how all of those aspects of a person's life interact when you're providing healthcare. Nurses bring that important perspective to the healthcare team."

PHOTOGRAPH © DAN ADDISON



CHALLENGE

Lead the UVA School of Nursing's efforts to develop an equitable, inclusive, and respectful learning climate

IMPACT

Cultivate a community at the School of Nursing that truly reflects the diversity of modern U.S. society

ACTION

Learn about the culture at UVA School of Nursing by talking to students and faculty about their experiences; create programs to improve access for underrepresented populations; promote self-awareness and inclusive and respectful teaching and learning

"In the nursing profession, we have a way to go to reflect the populations we serve—especially as you go up the ladder in nursing to advance practice and leadership roles. We can best serve our communities by thinking about diversity, not only in terms of race, ethnicity, gender, sexual orientation, and physical abilities, but in the diversity of experiences and perspectives that enrich us all."

UVA CURRY SCHOOL PROFESSOR GIVES BACK

Seed Funding Will Support Promising Neuroscience Research

A

S A PROFESSOR AT UVA'S CURRY SCHOOL of Education, Harold Strang was an avid researcher focused on human development and learning. Though he retired in 2008 as a professor emeritus after 39 years at the University, he hasn't forgotten the impact of seed, or startup, funding for his career, allowing him to grow, both as a scholar and a teacher.

As an expression of gratitude for this support he received during his early professional life, Strang and his wife, Alice, have made a generous bequest to UVA School of Medicine, providing seed money for young scientists to

investigate traumatic brain injuries, stem cell therapies, and Alzheimer's disease. The endowment will support two junior researchers each year.

"I was supported and given the opportunity to follow my dreams at UVA, and Alice and I want to give back now to make it possible for other young researchers to follow their dreams," says

“

I want to make it possible for other young researchers to follow their dreams.

”

Strang, who now enjoys creating life history videos of older adults sharing their memories. "Seed money can be the start of exciting and meaningful research that mushrooms out and expands the base of knowledge about a particular discipline."

Having suffered a traumatic brain injury several years ago, Strang understands first-hand the challenges of overcoming these circumstances. The couple appreciated the high level of care Strang received at UVA Medical Center, and they hope their gift may ultimately lead to breakthroughs in the understanding and treatment of brain trauma and disorders. They have a particular interest in applications of the research for military veterans returning with head injuries, children with brain disorders, or seniors suffering from the effects of aging.

"We were incredibly impressed by the excellence, the performance, and the dedication of UVA's neurosurgeons and others who cared for Harold's brain injury," says Alice Strang, who received a master's degree from UVA and currently works as a family mentor for People Places. "Our interest in giving to the School of Medicine began with our personal experience with the superb doctors, nurses, and other caregivers at UVA."

Traumatic brain injuries and brain disorders not only affect the patient, but also significantly alter the lives of their loved ones. Jaideep Kapur, MD, PhD, director of UVA's Neuroscience Center of Excellence, says the Strang endowment will give UVA's young scientists a chance to study new ideas and collect initial data that will make them more competitive for major federal grants.

"This kind of generous support from grateful patients not only validates the excellent care they receive at UVA, but also allows promising scholars to explore innovative ideas," Kapur says. "Our donors are helping us remain at the forefront of better understanding traumatic brain injuries and disorders." ●



Grateful patient Harold Strang and his wife Alice are supporting promising new research at UVA.

PHOTOGRAPH © STEPHANIE GROSS

OVERCOMING TRAUMATIC BRAIN INJURY

In just a few seconds, traumatic brain injury (TBI) can change a person forever. It can alter who the person is, how they act, and even how they feel.

Accurately diagnosing and treating TBI is difficult. Standard scans are only able to identify alterations to the brain's structure such as bruising, tissue tears, or blood accumulation. However, most changes to the brain that result in sometimes debilitating symptoms are typically only visible at the cellular or molecular level.

UVA is leading the way in creating new understanding about TBI. From studying the effects of brain injuries on athletes to developing new imaging strategies, our researchers are designing new therapies and more effective ways to diagnose, or even prevent, TBI.

At least 1.7 million cases of traumatic brain injury occur in the U.S. each year.



Mark Kester's "NanoJackets" have the potential to deliver therapeutic cancer drugs straight to tumors, significantly diminishing side effects for patients.

PHOTOGRAPH © STEPHANIE GROSS

THE FUTURE OF MEDICINE IS SMALL

Nanotechnology Promises to Revolutionize Cancer Treatments

THE NEXT BIG BREAKTHROUGH in cancer treatment may come in a tiny package.

Nanotechnology has the potential to deliver powerful drugs directly to cancer tumors while reducing debilitating side effects. Mark Kester, PhD—one of the nation's top experts in creating nanosolutions for medicine—joined UVA this summer as co-director of the Institute for Nanoscale and Quantum Scientific and Technological Advanced Research, or nanoSTAR. He will work closely with UVA Cancer Center Director Thomas P. Loughran, Jr., MD, to reveal the potential of nanotechnology to treat cancer.

"There are plenty of great drugs that can eradicate cancer cells, but they also kill other cells, which results in all the side effects of cancer treatments," Kester explains. "Nanotechnology allows us to protect and package the therapeutic and deliver it stealthily. Basically, I design FedEx trucks. They're designed to deliver on time, all the time, to the tumor."

Supporting their efforts are the National Institutes of Health and the National Cancer Institute, which awarded Kester and Loughran a \$10 million program grant for four projects utilizing nanotechnology in the treatment of acute myeloid leukemia (AML). AML has a poor prognosis, and no new effective therapies have been discovered for decades.

Kester hopes UVA researchers can begin a first-in-man trial in January to test ceramide nanoliposomes, bioactive

fats, many of which occur naturally in the body, that are stable and nontoxic. The particles seek out cancer cells, penetrating the outer membranes and releasing the drugs they carry. These nanostructures may be effective in fighting difficult-to-treat cancers, including liver cancer, certain types of leukemia, pancreatic cancer, and breast cancer.

PERSONALIZED MEDICINE

This scientific revolution ushers in the era of personalized medicine—treatments tailored to target each cancer patient's specific genetic mutation. These "lab-on-a-chip" nanotechnologies also may offer cheaper, convenient testing of patient samples, as well as more accurate diagnosis and imaging of cancer cells.

"With these advanced therapeutics, you get that FedEx truck working through the body finding the tumors while bypassing healthy cells," says Kester, adding that nearly 50 percent of the drugs on the market by 2025 will be enabled by nanotechnology.

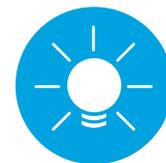
"We'll be able to deliver drugs that go after a person's specific cancer and directly to the mutated genes, rather than affecting the normal cells," he adds. The program also will support research in other medical disciplines, including heart and vascular care, ophthalmology, and orthopedics.

Loughran has worked to build a framework to support this type of advanced science at UVA, which includes investments in technology and star faculty, and building collaborations amongst physicians and scientists. "In the bigger scope of things,

this is an issue that spans Grounds," Loughran says. "This is a collaboration between the UVA Schools of Medicine and Engineering to benefit patients throughout the state."

"What attracted me to come to UVA was the diversity of faculty across Grounds who will help us develop, validate, and commercialize the next generation of therapeutics used for cancer treatments," says Kester. "The commitment to out-of-the-box approaches like nanotechnology is what defines UVA as a leader for cancer patients in Virginia." ●

WHAT DOES IT TAKE?



Funding for Innovative Research



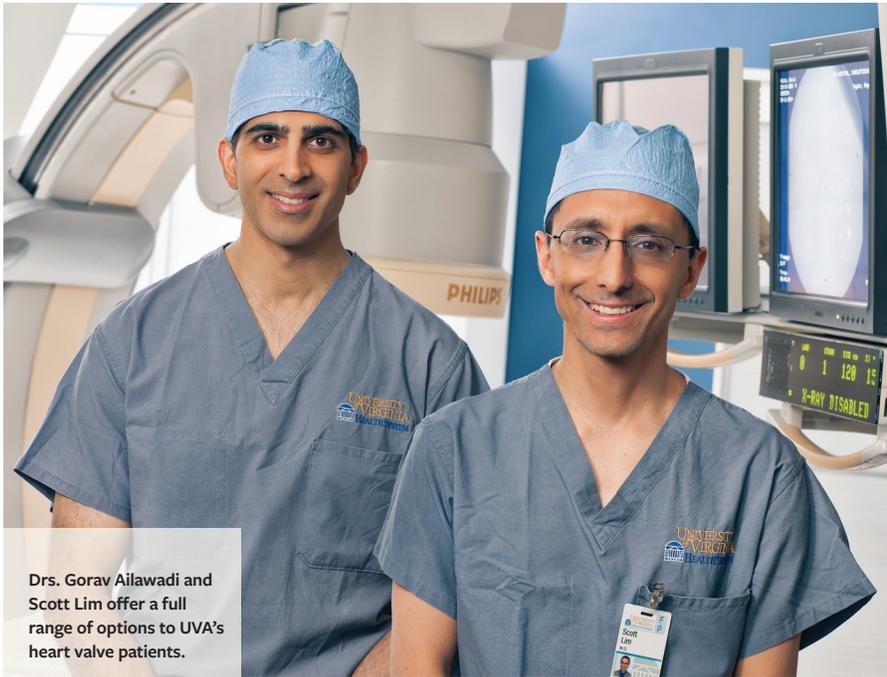
Support for Clinical Trials



Faculty recruitment & retention packages

UVA OFFERS THE LATEST TREATMENTS FOR HEART VALVE DISEASE

Less Invasive Procedures Lead to Better Outcomes for Patients



Drs. Gorav Ailawadi and Scott Lim offer a full range of options to UVA's heart valve patients.

DID YOU KNOW?

In addition to innovative, compassionate patient care, UVA's heart valve team is committed to telemedicine efforts in rural areas of Virginia, and to humanitarian efforts to treat heart patients in developing countries around the globe.

PHOTOGRAPH © JACKSON SMITH



HEN STANLEY BEHRENS WASN'T ABLE TO FIND A MEDICAL CENTER near his home in Corona del Mar, a suburb of Newport Beach, California, to treat his heart's leaky mitral valve, he turned to UVA.

In his early 90s, Behrens was considered high risk for open-heart surgery. But UVA is one of the few centers in the U.S. with expertise in the minimally invasive MitraClip procedure and other options for mitral valve surgery including a small keyhole incision.

"The MitraClip technique is less invasive and often is a good option for patients who are not candidates for open heart procedures," says UVA cardiologist Scott Lim, MD, an internationally recognized teacher of mitral valve repair using

MitraClip. "The patient experiences virtually no pain, a shorter hospital stay and a faster recovery."

The results from Behrens' September 2013 procedure were excellent. At 92, Behrens lives alone and is able to take care of his home, drive, and travel. He also oversees the foundation through which he provides scholarships to students at the University of California-Irvine.

"I believe Dr. Lim is top in his field, and he—along with the rest of UVA's medical team—provided excellent care," says Behrens. "The key is that they do a large volume of these procedures. They are very good at what they do."

UVA provides a full range of complex, open heart valve surgeries as well, treating patients from across Virginia and the U.S. A wide range of specialists—including interventional cardiologists, cardiovascular surgeons, imaging specialists, geriatricians, pulmonologists and more—work closely together to evaluate each patient holistically and tailor treatments to meet individual needs. This collaborative approach sets UVA apart from its peers and results in excellent outcomes.

"Our specialists have a nationally recognized expertise in treating patients with valve disease and are keen on helping determine the best treatment for each patient," says cardiovascular surgeon Gorav Ailawadi, MD, the first surgeon in the U.S. to perform catheter-based mitral valve repair. "It's a very personalized approach that gives our patients the best chance of returning to their normal activities with the quickest recovery."

Lim and Ailawadi are developing and testing new heart valves, which they hope to study in humans. They want to develop a state-of-the-art, smart operating room with live video feeds to help train the next generation of highly skilled and collaborative cardiologists and heart surgeons.

"When we look into the future, we see that the treatment options for patients with heart valve disease are evolving rapidly," says Lim. "As UVA attains more innovative imaging and diagnostic equipment, and greater funding for research, we'll have many opportunities to offer the most effective therapies to our patients."

Ailawadi adds: "We are already renowned for our excellent outcomes in valve surgery and our novel treatment approaches. Additional support will let us expand our mission and help more patients." ●

GIFTS OF THANKS

LEADERSHIP GIFTS TO THE UNIVERSITY OF VIRGINIA HEALTH SYSTEM have the power to save lives. Through the dedication of our alumni, friends, and benefactors, we are making incredible strides in patient care, research, and nursing and medical education. **This list represents gifts of \$100,000 or more made to any area of the Health System from January 1, 2013 to June 30, 2014.** We have done our best to ensure that every gift made during this time period has been recognized here. If we missed your gift, or listed your name in error, we apologize and ask that you please notify the UVA Health Foundation at 800.297.0102 or 434.924.8432.

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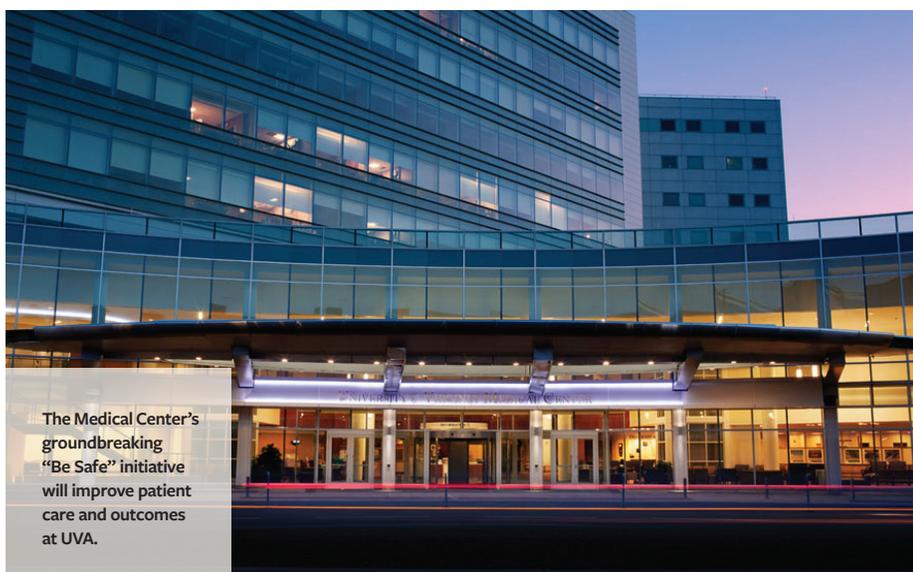
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PULSE

PHILANTHROPY IN ACTION AT UNIVERSITY OF VIRGINIA HEALTH SYSTEM

SITUATION ROOM FOR PATIENT SAFETY



The Medical Center's groundbreaking "Be Safe" initiative will improve patient care and outcomes at UVA.

PHOTOGRAPH © PHIL DEJONG | JOURNEY GROUP

UVA HEALTH SYSTEM is at a pivotal moment in its history. Recent facility improvements and expansion of clinical services have inspired renewed efforts to boost UVA's national reputation and make it the safest place to work and receive care.

The "Be Safe" initiative is the first step of this movement. This innovative program empowers employees at all levels—particularly those on the front-line of serving patients, such as nurses, receptionists, and environmental services staff—to identify, report and solve problems related to patient or employee safety. Team members then work together to engage a "help chain" to expedite solutions within hours or days. Spearheaded by Richard Shannon, MD, executive vice president for health affairs, the program is unlike anything ever done at UVA.

An important part of this endeavor is promoting open lines of communication to make all employees feel welcome to report

problems and offer suggestions. To facilitate this effort, Shannon has established the "Situation Room," where he meets every weekday morning with 15 top administrators to review events of the previous day. The group talks about anything that went wrong, such as infections, accidents or unexpected deaths. Then they brainstorm about solutions to fix problems at the root and avoid similar issues in the future.

"The Situation Room is a live place where we actually see the harm that occurred yesterday, and we can evaluate it," says Shannon, who joined the Health System last year.

Pamela Sutton-Wallace, who joined UVA Medical Center as chief executive officer this summer, will partner with Shannon to oversee "Be Safe" and other clinical care initiatives. Sutton-Wallace succeeded R. Edward Howell, who retired in June after more than 12 years as the Medical Center's CEO. ●

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