

UAB Marnix E. Heersink School of Medicine

2022 ANNUAL REPORT



UAB HEERSINK
SCHOOL OF MEDICINE
The University of Alabama at Birmingham





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This page: Teresa Shufflebarger is chief administrative officer of Live HealthSmart Alabama, a major initiative of the Minority Health & Health Equity Research Center. Read more on page 52.

On the cover: Mary Heersink Institute for Global Health Director Alan Tita and Associate Director for Research and Partnerships Lynn Matthews lead one of two new institutes created by a \$95 million naming gift in 2021. Read a one-year update on the gift on page 2.

Dear friends and colleagues,

The past year has been one of profound transitions. We completed our first year as the UAB Marnix E. Heersink School of Medicine, following the September 2021 announcement of a transformational \$95 million lead gift from longtime UAB supporter Marnix E. Heersink, M.D., which was enhanced with a contribution of \$5 million from Triton Health Systems. Along with a new name, the gift bestowed a host of new opportunities and avenues of exploration, not just for our school but also for the city of Birmingham and the state of Alabama, that we have taken the first steps to make a reality.

In terms of COVID-19, we have begun to shift from pandemic to endemic. This past September, UAB began offering patients and employees an updated “bivalent” COVID-19 booster vaccine, which targets the most recent Omicron subvariants (BA.4 and BA.5) that are more contagious and more resistant than earlier strains of Omicron. The hope is that COVID-19 may eventually be treated like other seasonal viruses with an annual booster. But we must remain vigilant, especially here in Alabama where vaccination rates continue to lag the rest of the country. While we will never forget the millions of lives that were lost to COVID, and the suffering that our nation and the world experienced, there is much cause for hope.

Last summer, a leadership transition took place at our school, when then Dean and Senior Vice President for Medicine Selwyn Vickers, M.D., FACS, announced he would be leaving UAB to become president and CEO of Memorial Sloan Kettering Cancer Center. Shortly thereafter, UAB President Ray Watts, M.D., announced that I had been appointed interim senior vice president for Medicine and dean, a role I officially assumed in September.

It has been my honor to serve in various leadership roles at UAB, which I have called my professional home for nearly two decades. I joined the faculty in 2003 and served as the division director of Nephrology from 2008-2021, as well as the program director of the NIH-funded O'Brien Center for Acute Kidney Injury Research. Before Dr. Vickers' arrival in 2013, I served as interim dean during the search for a permanent dean. Since 2014, I have served as executive vice dean, working closely with Dr. Vickers and the Dean's Leadership Team.

With these experiences to guide me, I am grateful for the opportunity to carry forward the critical missions of our school in patient care, biomedical discovery, and training the next generation of physician and scientist leaders while the national search to fill the dean's position takes place. The past year has been full of change and transition, yet our mission areas continue to thrive because we stay focused on what is most important: improving the health of all who come to us for care, and whose lives we touch through our many partnerships and collaborations across the state, region, nation, and, indeed, the world.

Sincerely,

ANUPAM AGARWAL, M.D.
Interim Senior Vice President for Medicine and Dean
UAB Heersink School of Medicine
Professor of Medicine, Division of Nephrology
Hilda B. Anderson Endowed Chair in Nephrology
University of Alabama at Birmingham



Extraordinary gift, extraordinary year

A year has passed since the September 2021 announcement of a transformational \$95 million gift from longtime UAB supporter Marnix E. Heersink, M.D., which was enhanced with a contribution of \$5 million from Triton Health Systems. The record gift—the single largest philanthropic commitment in university history—named the UAB Marnix E. Heersink School of Medicine and established and named the Marnix E. Heersink Institute for Biomedical Innovation and the Mary Heersink Institute for Global Health. The gift also named the planned Marnix E. Heersink Institute for Biomedical Innovation Conference Center.

In making the gift, Dr. Heersink attributed his affinity for the school to a set of qualities it embodies that he calls the “three E’s”: excellence, expansive, and encompassing. Extraordinary could well be called the “fourth E,” in that the past year has been one of extraordinary excitement and activity. “Becoming a named public institution has changed the trajectory of growth for us,” says Megann Bates Cain, MPPM, assistant vice president for development for the UAB Heersink School of Medicine. “The impact is huge.”

“We’ve seen tremendous growth in the development of the Marnix E. Heersink Institute for Biomedical Innovation and the Mary Heersink Institute for Global Health, and the Heersink School of Medicine naming gift has catalyzed a host of positive outcomes for our school,” says Heersink School of Medicine Interim Dean Anupam Agarwal, M.D.

Another important outcome of the gift is the relationship it has fostered with McMaster University in Hamilton, Ontario, Canada, where Dr. Heersink also made a gift to create the Marnix E. Heersink School of Biomedical Innovation and Entrepreneurship and the Mary Heersink Program in Global Health. On March 16, UAB and Heersink School of Medicine leaders welcomed McMaster University President David Farrar and Faculty of Health Sciences Dean Dr. Paul O’Byrne, as well as Dr. and Mrs. Heersink, to the UAB campus to discuss the future of the new institutes and the abundant opportunities for collaboration.

Becoming a Biomedical Innovation Leader

The Marnix E. Heersink Institute for Biomedical Innovation was created to address the high costs, unequal access, and inefficiencies that plague the U.S. health care system by leveraging digital technologies, data, artificial intelligence, and mixed reality. The institute is led by Rubin Pillay, M.D., Ph.D., assistant dean for Global Health Innovation in the Heersink School of Medicine and chief innovation officer for UAB Health System. “We have four signature clusters for the institute: artificial intelligence in medicine, digital health care, big data and analytics, and the Metaverse or meta health,” says Pillay. “All of our programming reflects those four signature areas, which, in my opinion, will shape the future of health care.”

In making the gift, Dr. Heersink attributed his affinity for the school to a set of qualities it embodies that he calls the “three E’s”: excellence, expansive, and encompassing.

Top priorities for the institute in its first year include preparing for the 2023 launch of graduate certificates in Digital Health, Artificial Intelligence in Medicine, and Healthcare Innovation. A master’s degree in Healthcare Innovation is also being planned for launch in January 2024.

The first cohort of Heersink Innovation Fellows began in October. The fellows participate in the institute’s Healthcare Innovation Bootcamp, which is led by Pillay and teaches health care executives and managers how to “future-proof their health care organizations through creativity, innovation, and entrepreneurial thinking.” They then undertake a year of research, curriculum development, or outreach initiatives that link their home discipline to health care innovation. At the end of the year, the fellows gather for an annual forum to share their progress.





On March 16, 2022, UAB and Heersink School of Medicine leaders welcomed McMaster University President David Farrar and Faculty of Health Sciences Dean Dr. Paul O'Byrne, as well as Dr. Marnix and Mary Heersink.

Similarly, a small group of graduate students will be selected each year for the Heersink Creativity, Innovation, and Entrepreneurship (CIE) Scholars Initiative. Each semester, CIE Scholars will participate in the institute's Healthcare Innovation programming and develop a commercialization and business plan for a student or university-developed technology.

On September 29, the institute hosted the inaugural AI in Medicine Symposium, with keynote speakers Anthony Chang, M.D., chief intelligence and innovation officer at Children's Health of Orange County and the author of "Intelligence-Based Medicine," and Chris Aakre, M.D., vice chair for AI and Informatics at the Mayo Clinic in Rochester, Minnesota.

Closer to home, the Heersink Biomedical Innovation Institute is also partnering with city and health care leaders in Dothan, Alabama, the Heersink family's hometown. For example, the institute partnered with Troy University to launch the Dothan Community Entrepreneurship Initiative in October 2022. This 12-month intervention program is directed at people living in poverty or disadvantaged circumstances who want to start and run their own businesses. A similar initiative was also launched in Birmingham.

"Working with social determinants of health means going to the root cause to eliminate poverty," says Pillay. "So as an institute, tackling a root cause through the Dothan Community Entrepreneurship Initiative reflects this approach."

Expanding Global Health Impact

The Heersink gift allowed the school to begin organizing and coordinating existing engagements in approximately 40 countries under the umbrella of the Mary Heersink Institute for Global Health (MHIGH). Under the leadership of MHIGH Director Alan Tita, M.D., Ph.D., associate dean for Global and Women's Health in the Heersink School of Medicine and a professor in the UAB Department of Obstetrics and Gynecology, the institute has made progress toward identifying a network of collaborative partners in international settings. This framework allows the institute to examine shared opportunities and challenges with global partners and to collaborate on finding and implementing innovative, effective, and sustainable solutions to global health problems. To better organize and coordinate global health initiatives coming out of the school, an MHIGH Steering Committee includes department-appointed representatives and faculty leading global health initiatives.

In the past year, the MHIGH, in partnership with the UAB Sparkman Center for Global Health and the School of Public Health, initiated the application for a Master of Science in Global Health program, with the aim of starting the program in fall 2023. "Our Master of Science in Global Health program will be the first of its kind at UAB, and there are a very few programs like it in the U.S.," says Tita. "It will be an interdisciplinary program that benefits from our strong partnerships here at UAB and across the globe, and we plan to collaborate with McMaster and other universities in the affiliated Global Health Consortium."

The MHIGH announced its first cohort of pilot project awardees in 2022. The awards are aimed at fostering collaboration between investigators at UAB and international partners and their mentees as they work to address pressing global health challenges. Projects awarded include improving maternal and neonatal outcomes in low-resource settings, developing a colorectal cancer research education program in Egypt, collaborating with the Africa Health Research Institute in South Africa to help end the tuberculosis pandemic, and a breast cancer education and stigma reduction intervention in Tanzania.

The Global Health Institute launched its Biomedical Seminar Series in February 2022 with a presentation by Robert Goldenberg, M.D., professor in the Columbia University School of Medicine Department of Obstetrics and Gynecology, on "Pregnancy Outcomes in Low-Income Countries." In July, Benjamin Chi, M.D., MPH, professor and vice chair of research and innovation in the University of North Carolina Division of Global Women's Health, presented "Preventing HIV in Pregnant Women and Infants: A Family-Based Approach."

Honoring Faculty Achievements

In 2022, the Heersink and Triton gifts enabled the establishment of several new endowed positions to honor the achievements of talented faculty physicians and scientists and help ensure stability and continuity for their research, patient care, and leadership activities. They include:

- Jeremy Day, Ph.D., an associate professor in the UAB Department of Neurobiology, was named the Michael Friedlander, Ph.D., Heersink Endowed Professor.
- Nita Limdi, Pharm.D., Ph.D., MSPH, a professor in the UAB Department of Neurology and associate director of the Hugh Kaul Precision Medicine Institute, was named the Ray L. Watts, M.D., Heersink Endowed Chair in Neurology.
- Alan Tita, M.D., Ph.D., director of the Mary Heersink Institute for Global Health, associate dean for Global and Women's Health in the Heersink School of Medicine, and a professor in the UAB Department of Obstetrics and Gynecology, was named the inaugural Mary Heersink Endowed Chair in Global Health.
- Michael Niederweis, Ph.D., a professor in the UAB Department of Microbiology, was named the inaugural Triton Endowed Professor in Bacteriology.
- Andrea Cherrington, M.D., a professor in the UAB Division of Preventive Medicine, was named the inaugural Triton Endowed Professor in Heath Equity Research.

On September 29, 2022, the Endowed Chairs and Professorships Reception honored 16 new endowed chairs and professors, including three new endowed positions made possible by the Heersink naming gift and two new endowed professorships funded by Triton Health Systems' contribution.



Unprecedented national academies recognition

On October 17, UAB announced that three Heersink School of Medicine faculty members were invited to join the National Academy of Medicine (NAM), one of the highest honors that a physician or scientist in the United States can receive.

Marie-Carmelle Elie, M.D., chair of the Department of Emergency Medicine; James Markert, M.D., chair of the Department of Neurosurgery; and Alan Tita, M.D., Ph.D., associate dean for Global and Women’s Health, director of the Mary Heersink Institute for Global Health, and professor in the Department of Obstetrics and Gynecology, joined 12 current and former UAB faculty members who have been elected to the NAM.

The NAM elects no more than 90 U.S. members and 10 international members annually. New members are elected by current members through a process that recognizes individuals who have made major contributions to the advancement of the medical sciences, health care, and public health.

The academy lauded Elie for being the first African American woman to chair an academic emergency department in the nation and for representing the first scholar at the crossroads of the emergency medicine, critical care, and palliative care disciplines to achieve such recognition in North America.

Markert was cited by the NAM for being a world expert on oncolytic viruses, author on a first-ever paper of genetically engineered oncolytic viruses, primary author on the first-in-human trial of an oncolytic virus, senior author on first use of an IL12-expressing virus for human glioma, and currently conducting adult and pediatric brain tumor trials.

The academy praised Tita for his work as an innovative and impactful perinatal epidemiologist and clinical researcher who leads large, collaborative, multicenter

national and international trials and observational studies that have shifted practice and policy and improved the quality of national and global obstetric care.

The honors followed the May 5 announcement that Casey Weaver, M.D., professor in the Department of Pathology, had become the third faculty member in university history to be elected to the prestigious National Academy of Sciences (NAS). The NAS—sometimes called the science hall of fame—has 2,512 U.S. and 517 international members, including about 190 Nobel laureates.

For 30 years, Weaver has studied T cells, one of the critical white blood cells of the immune system in their role of protecting the body from infection and cancer. He has published more than 180 peer-reviewed papers in outstanding high-impact and prestigious journals, including Science, Nature, Cell, Nature Immunology, Journal of Clinical Investigation, Journal of Experimental Medicine, Science Immunology, Nature Medicine, and eLife, and he is an author of “Janeway’s Immunobiology,” one of the leading immunology textbooks.

In other NAM news, Ellen Eaton, M.D., associate professor in the Division of Infectious Diseases, was selected to serve as a National Academy of Medicine Emerging Leader in Health and Medicine (ELHM) Scholar for a three-year term beginning June 1, 2022. Each year, the NAM selects 10 exceptional ELHM scholars to engage around, and learn from, activities under the umbrella of the NAM, addressing topics that are currently shaping the future of health and medicine.

Eaton, who helps lead the UAB Center for Addiction and Pain Prevention and Intervention, applied to contribute to NAM priority areas around the opioid crisis and COVID-19. — Mary Ashley Canevaro, Jeff Hansen, Adam Pope, Bob Shepard

2022 NATIONAL ACADEMY INDUCTEES

National Academy of Medicine: Marie-Carmelle Elie, M.D., James Markert, M.D., and Alan Tita, M.D., Ph.D.
National Academy of Sciences: Casey Weaver, M.D.



Marie-Carmelle Elie



James Markert



Alan Tita



Casey Weaver

Education

Training future leaders

Our world-class medical education
programs train physicians at all levels

Five years at the helm

By the time Roger Smalligan, M.D., MPH, joined the Huntsville Regional Medical Campus (HRMC) as regional dean in 2017, his career included nearly 10 years practicing medicine in the Amazon jungle region of Ecuador, where he served as medical director for a 30-bed hospital.

“There was never a dull moment,” he says. “The hospital was multinational, with physicians from all over the world working alongside the highly-skilled Ecuadoran staff. We treated everything from snake and wild animal bites to routine conditions like pneumonia. We also faced tropical diseases like tuberculosis, yellow fever, and malaria, as well as rampant parasitic diseases due to the primitive conditions and lack of a clean water supply for the people.”

Smalligan’s duties as regional dean may be a bit tamer, but his time in Ecuador, and later working in Texas, serve him well as regional dean. “While all our students get a great clinical education we also look for talented young people from rural Alabama who we can encourage to go into medicine and train with us. Research shows they’re likely to come back and practice in the area and fill some of the health care needs,” he says.

Smalligan, who marked his five-year anniversary as regional dean in January 2022, arrived in Huntsville with a cache of ideas to further that goal. First up was faculty recruitment, a priority because of looming retirements. “In five years, I’ve recruited a new chair of every department—Family Medicine, Internal Medicine, Psychiatry, and Pediatrics—all of whom are outstanding people and strong leaders.” He also added 12 new faculty members across the campus.

Another challenge was the need to increase scholarly activity and academic pursuits of the faculty, residents, and students, something he considered a personal success while at Texas Tech, Amarillo. He’s seen similar success at the HRMC.

Thanks to increases in research participation and strong faculty leadership, Smalligan says HRMC student performance is on par with or exceeds Birmingham’s, and students continue to achieve an outstanding residency match rate.

“We are very proud of new diversity efforts on our campus, one of which is the rollout of a new early medical school acceptance program for students who are underrepresented in medicine,” Smalligan says. He sought the help of the Office of Diversity and the Dean of

Admissions to initiate the program with the Heersink School of Medicine after noting that graduates of Huntsville’s predominantly African American Oakwood University were routinely leaving the state for postgraduate education. The now-sponsored Burroughs Wellcome Scholars program includes Oakwood and Alabama A&M University in Huntsville, along with Alabama State University and Tuskegee University, provides rising juniors from each university with shadowing opportunities, MCAT preparation, and other guidance as they prepare to study at the Heersink School of Medicine.

Increasing diversity among faculty is another priority area where Smalligan has seen success, including appointing Steffane Battle, M.D., as the campus’s first African American woman regional chair of Pediatrics, thanks to her outstanding performance as interim chair, he says.

Ask Smalligan, who was recently installed as president of the Madison County Medical Society, to list his top accomplishments and he provides a written summary of actions taken, their outcomes, and his projections for the future. It’s nine pages long.

“I feel like we’ve done a lot in five years and my goal is to continue that trajectory. We plan to continue to grow and expand, and want our students be happy and successful as they fulfill their dreams.” — *Lynne Hall*



Training to serve the underserved

“It’s not just something we’re doing solo here in Birmingham. It’s really partnering with the other campuses and their primary care folks that will enrich and sustain this program long-term.”

JILL MARSH

Last summer, 14 medical students from the Heersink School of Medicine’s four regional campuses in Birmingham, Huntsville, Montgomery, and Tuscaloosa made up the second cohort of the Comprehensive Urban Underserved and Rural Experience, or CU²RE, program in UAB’s Department of Family and Community Medicine.

For eight weeks, the students, who had just finished their first year of medical school, engaged in in-person and virtual workshops on their respective regional campuses as well as group activities and excursions, learning how to care for underserved communities. Activities included spending a day in Montgomery visiting museums and exhibits devoted to the history of slavery, racism, and racism in medicine, and participating in skills workshops exploring procedures in women’s health and dermatology. Each student receives a \$20,000 stipend during their time in the CU²RE program and medical school.

The summer program is part of the larger CU²RE program, which was created to support medical students interested in serving in areas of the state that lack adequate primary care. Topics such as interprofessional education, behavioral health, social determinants of health, cultural and linguistic competency, practice transformation, and telehealth are covered in the program’s curricular and clinical experiences.



A \$7 million Health Resources and Services Administration (HRSA) grant that the Department of Family and Community Medicine received in 2020 allowed it to launch the CU²RE program, which welcomed its first cohort later that year and its second cohort in 2021. In September 2022, UAB’s CU²RE program received \$5.5 million in supplemental HRSA funding for the second year in a row.

The summer 2022 program expanded from primarily recruiting Birmingham-based students interested in urban underserved communities to include students from all four campuses with an interest in both urban and rural care. “It’s not just something we’re doing solo here in Birmingham,” Jill Marsh, M.D., director of Urban Underserved and Rural Pathways, says. “It’s really partnering with the other campuses and their primary care folks that will enrich and sustain this program long-term and ultimately benefit patients all over the state.”

Cohort-wide programming took place in Birmingham over two weeks in June, when students participated in leadership sessions led by Michael Wiederman, Ph.D., professor and director of Leadership and Professional Development in the Department of Family and Community Medicine.

Shyla Fields, MBA, director of the department’s Office of Identity, Inclusion, and Collective Conscience, led students on a tour of Birmingham civil rights movement landmarks and cultural sites. Students also visited The Legacy Museum, the National Memorial for Peace and Justice, and the Mothers of Gynecology Monument in Montgomery.

CU²RE students also provide coaching for a patient panel during their time in the program, and many began meeting those patients for the first time last summer. Marsh says this opportunity allows the program’s students to establish the long-term relationships primary care doctors have with their patients, which she says is a key joy and value of the specialty of family medicine.

The CU²RE program’s third cohort will begin in 2023. —Ann Marie Stephens and Caroline Newman



Student Summer Research Programs

Research is an important part of Heersink medical students’ summer experiences. Many programs are NIH-funded and, like the CU²RE program, offer stipends for participating students. They include:

Department of Anesthesiology and Perioperative Medicine offers a variety of clinical and research learning opportunities.

Department of Surgery Summer Research Program/STREAMS offers basic science, translational, outcomes, and education research opportunities in numerous surgery subspecialties.

Diabetes Research Center Summer Research Fellowship awards funds for up to six students for the minimum eight weeks of active research. Training includes a full-time summer hands-on research laboratory experience and a seminar program.

Functional Neurorehabilitation Research opportunities provide hands-on training for the next generation of researchers at the undergraduate, doctoral, and postdoctoral levels.

Koopman Medical Student Research Excellence Awards are given annually to three outstanding medical students by the Department of Medicine. Students in the eight-week summer internship program are paired with a research mentor and are provided with a travel allowance and stipend.

O’Brien Center for Research in Kidney-Related Diseases Fellowships facilitate the training of the next generation of investigators interested in kidney-related research.

Short-Term Training in Health Professional Schools is an NIH-funded eight-week program that provides a stipend and hands-on opportunities for UAB MS1 medical students who are interested in biomedical research in a research laboratory or in a clinical/translational research project.

Russell Cunningham Memorial Research Program provides two students with an eight-week fellowship that includes an opportunity to attend a variety of pediatric clinics and/or pediatric hospital rounds and conferences

Race 4 Path is a Clinical and Forensic Pathology Summer Program open to rising MS2 medical students who participate in an eight-week summer immersion, which includes a translational project in pathology.

Medical school milestones

Match Day magic

The 2022 graduating class of the UAB Heersink School of Medicine celebrated an extraordinarily successful Match Day on Friday, March 18. Not only did the Class of 2022 achieve an outstanding 100% match rate, but they did so while overcoming tremendous challenges brought on by the pandemic. Moreover, this year's was the largest Match Day on record, with more than 47,000 applicants from U.S. medical schools, international medical schools, and osteopathic schools competing for 39,205 residency positions. The largest number of students matched into family medicine and internal medicine residencies, with 23 students each, followed by 18 in pediatrics, 18 in neurology, 11 in obstetrics and gynecology, and 11 in orthopaedic surgery. Students also matched in anesthesiology (10); general surgery (8); emergency medicine (7); otolaryngology (7); ophthalmology and psychiatry (5 each); medicine-pediatrics and diagnostic radiology (4 each); dermatology and radiation oncology (3 each); child neurology, physical medicine and rehabilitation, thoracic surgery, vascular surgery, and urology (2 each); and interventional radiology and pathology (1 each). UAB students continued their medical training at 82 institutions in 30 states across the country, while 61 graduates remained in Alabama for residency. Learn more at uab.edu/matchday. – Kendra Carter

2022 MATCH STATS

100%

Match Rate

189

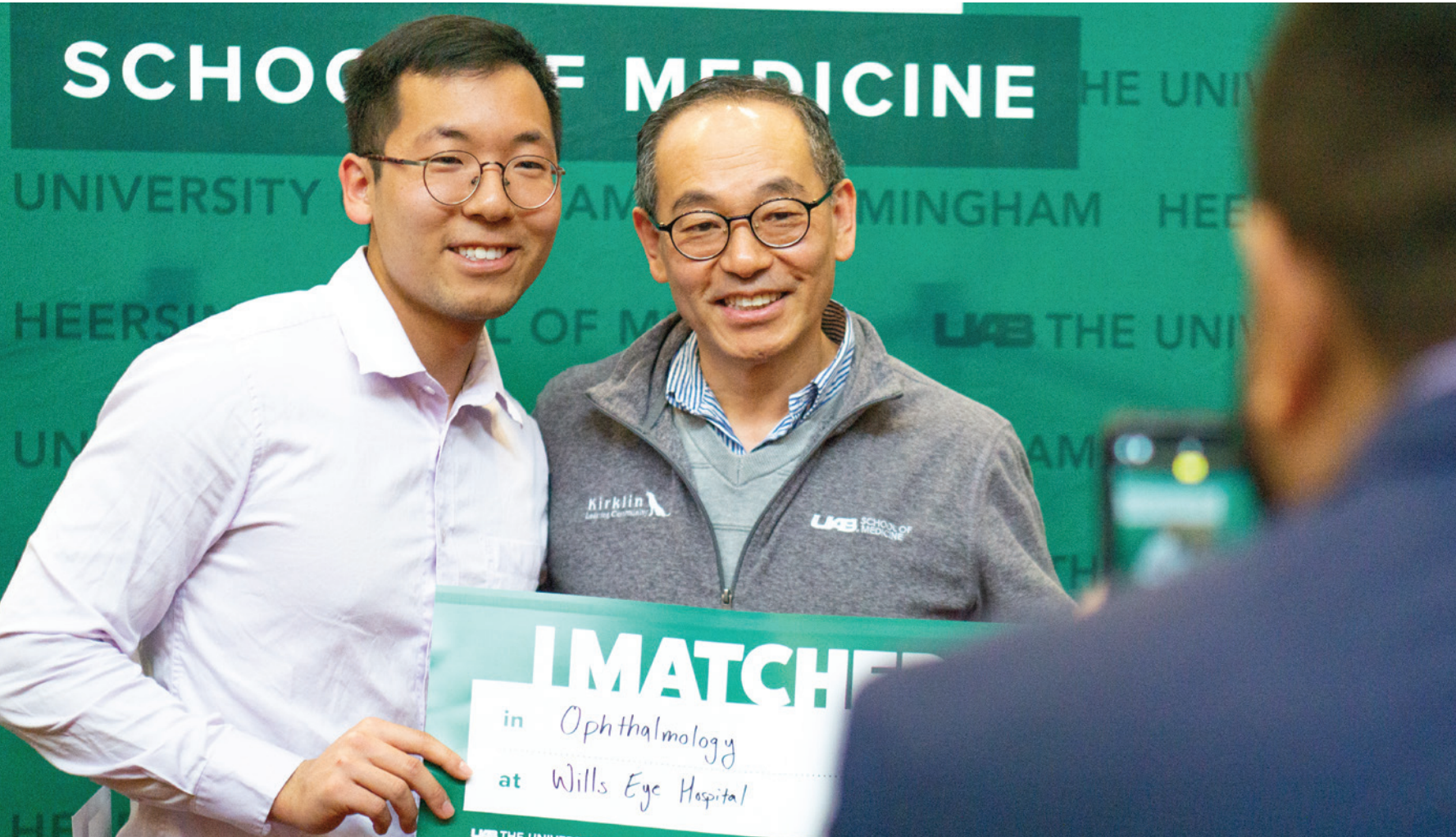
Students Matched

56

Matched at UAB

61

Matched in Alabama



Commencement cheers

On May 14, 2022, the UAB Heersink School of Medicine hosted an in-person Commencement with an unrestricted audience for the first time since 2019. Selwyn Vickers, M.D., FACS, then-senior vice president for Medicine and dean of the Heersink School of Medicine, CEO of the UAB Health System, and CEO of the UAB/Ascension St. Vincent's Alliance, kicked off the ceremony by welcoming the students and assembled family and friends. He introduced a special guest, Marnix E. Heersink, M.D., whose \$95 million gift to name the Heersink School of Medicine is fueling the school's next era of excellence.

"When the UAB family gave my family the opportunity to provide a significant investment in the School of Medicine, it was one of the greatest moments of our lives," Heersink said. "We know that we can support the school with its mission and all of the wonderful things it's doing, as well as the students ... I really would like to thank each and every one of you for allowing my wife Mary and I and our entire family to become part of the UAB family."

Alison Whelan, M.D., chief academic officer for the Association of American Medical Colleges (AAMC), presented the Commencement address. "For you, the summer of 2022 is the start of the next exciting phase of your medical training," she said. "For the world, the summer of 2022 is the start of a new, important phase as well, a rebalancing as we move from pandemic to endemic and work to reflect, rebuild, and retool, from the lessons learned in the pandemic to adapt to a new world and be ready for the next pandemic or health crisis." Watch the full ceremony at go.uab.edu/somcommencement2022. – Jane Longshore



The school hosted an in-person Commencement with an unrestricted audience for the first time since 2019.



White Coat Ceremony

On Sunday, August 14, the UAB Heersink School of Medicine welcomed the 2022 entering class at the annual White Coat Ceremony, held at the Alys Stephens Performing Arts Center. Anupam Agarwal, M.D., executive vice dean in the Heersink School of Medicine, shared that the white coat is a mantle of the medical profession—a symbol the students will wear in all their future patient encounters to remind them of the impact they will have on others' lives. He encouraged the students to stand and find their friends and family in the crowd, and give them a round of applause for providing the support that helped the students reach this pivotal moment, and that will be critical for their future success in medical school.

Keynote speaker Britney Corey, M.D., FACS, associate professor in the Department of Surgery, reiterated the importance of a strong support system. Corey was chosen by students as the 2021 faculty recipient of the Leonard Tow Humanism in Medicine Award. "Sometimes this profession breaks your heart," Corey said, "but it will always be mended by the hands of those who love you."

Several awards were presented at the White Coat Ceremony. MS3 Hana Habchi was awarded the 2022 Sara Crews Finley, M.D. Endowed Leadership Scholarship. The scholarship honors the legacy of Sara Crews Finley, M.D., co-founder of the first medical genetics program in the Southeast and a pioneer in the field, as well as a beloved faculty member and student mentor. Theresa Caridi, M.D., associate professor in the Department of Radiology, and Daniel Cox, M.D., associate professor in the Department of Surgery, were announced as the 2022 winners of the Brewer-Heslin Endowed Award for Professionalism in Medicine. Students were cloaked in their new white coats, which were provided by the Medical Alumni Association, by representatives of the school's regional campuses in Huntsville, Montgomery, and Tuscaloosa. — Kendra Carter

2022 ENTERING CLASS

- 4,700 Applicants
- 186 Matriculated
- 153 Alabama Residents
- 60 Undergraduate Colleges Represented
- 21% Underrepresented in Medicine





“Our goal is to create an environment of excellence in education, health care, and in attractive living.”

LOUIS LAMBIASE

Cultivating a culture of excellence

Ask Louis Lambiase, M.D., about his accomplishments and goals as regional dean of Heersink School of Medicine's Montgomery Regional Medical Campus (MRMC) and no doubt you'll hear the phrase “a culture of excellence.”

His proudest achievement as he marked his first-year anniversary, he says, is the success he has seen with his focus on excellence in teaching.

“Our faculty are all outstanding physicians, but must also pay attention to how effective they are as teachers,” he says. “We regularly have faculty development dinners where our educators discuss their teaching techniques and concentrate on the education part of what they do. We’ve made real strides, and the students appreciate how dedicated the faculty and our campus are to their education.”

In partnership with Baptist Health, the MRMC opened to medical students in 2014 with the express mission to increase the number of primary care physicians in Alabama’s rural and underserved communities. Since then, the MRMC has grown from 10 students to its current enrollment of 30 third- and fourth-year medical students, with 35 students scheduled for admission once they’ve completed their first two, preclinical years in Birmingham.

Lambiase, a practicing gastroenterologist, wants to see the number of students increase, but the shortage of physicians in the area presents him with a bit of a Catch-22 situation: An increase in students requires an increase in faculty—which is hampered by the shortage of

physicians in the area. He has enlisted the community in his recruitment efforts.

“I tell people that when they are choosing a physician to ask if they teach and if they don’t, why not. I think teaching is a mark of a quality physician.”

In addition to training the next generation of physicians, MRMC, in collaboration with Baptist Health and the city of Montgomery, are working to lessen the burden of health care disparities. Despite Covid and inflationary slowdowns, projects include adding mental health services and pediatric services. New endoscopic ultrasound and other equipment has been purchased and specialty procedures, such as the insertion of the area’s first esophageal stent (by Lambiase), have been performed.

Looking ahead, Lambiase envisions a path for MRMC that leads directly to, yes, a culture of excellence, and not only in teaching. “We start with creating the physician workforce of tomorrow for the River Region and the state of Alabama. This, in turn, will increase the capabilities in Montgomery in terms of excellent health care. Increasing those capabilities will increase what we can teach and that will also make it more interesting for our physicians to come back and practice here. Also, we are working with the community leaders of Montgomery to help make the area as attractive as possible for young professionals to live and work here. Our goal is to create an environment of excellence in education, health care, and in attractive living.” – Lynne Hall

Left to right: Huntsville Regional Dean Roger Smalligan, Montgomery Regional Dean Louis Lambiase, Heersink School of Medicine Interim Dean Anupam Agarwal, and Tuscaloosa Regional Dean Richard Friend at the 2022 White Coat Ceremony.



Focused on preclinical education

On September 1, 2022, William Brooks, Ph.D., officially became assistant dean for Preclinical Education in the UAB Heersink School of Medicine, a new position created to support team-based learning in curriculum development and active learning for first- and second-year medical students.

Brooks, a professor in the Department of Cell, Developmental and Integrative Biology, formerly served as director of both the Gross Anatomy and Surgical Anatomy Labs and director of the Musculoskeletal and Skin module.

"I am excited to take on this role to continue finding innovative and impactful ways to engage our students in their medical education," Brooks says. "We have an amazing group of preclinical educators and I look forward to working with them to ensure that our medical students graduate with the tools needed to apply foundational science knowledge and skills in clinical practice."

As assistant dean, his role includes developing and implementing the preclinical curricula consistent with Liaison Committee on Medical Education (LCME) standards and the school's goal to increase active, non-lecture formats in undergraduate medical education (UME). He also creates faculty development opportunities for preclinical educators that support their ability to deliver curricular content in innovative formats, works with UME leaders to assess course content, and helps module directors implement course improvements recommended by the school's Medical Education Committee. He also helps recruit and develop preclinical educators.

A native of Lawrence County, Alabama, Brooks earned his bachelors' degree in chemistry from Freed-Hardeman University in 2002 and his doctorate in cell biology from UAB in 2007. He held faculty appointments in the Department of Biology at Freed-Hardeman University and then the Department of Physical Therapy at Harding University before joining the UAB faculty.

His primary research interests are in evaluating the effectiveness of novel teaching methodologies, including team-based learning, in medical education and in fostering the training of anatomy educators to fill the shortage of anatomists. He is also interested in understanding how disability awareness curricula can contribute to culturally competent clinicians.

Medical students have consistently nominated Brooks for school awards for Best Educator and Best Module. He was recognized for teaching as winner of the Dale J. Benos Award for Educational Excellence in 2019 and the UAB President's Award for Excellence in Teaching in 2018. He was also recognized in 2020 with the Alabama Physical Therapy Advocate Award from the American Physical Therapy Association.

— Kendra Carter

All Heersink medical students complete their first two, preclinical years at the Birmingham campus, and complete their third and fourth years of clinical coursework in Birmingham or at one of the school's regional campuses in Huntsville, Tuscaloosa, and Montgomery.



Outstanding accreditation renewal

This accreditation highlights our excellence in both our medical education mission and our incredible faculty, staff, and students.

In November, the UAB Heersink School of Medicine was notified it had achieved the highest level of accreditation available to a medical school in the United States—valid for eight years—by the Liaison Committee on Medical Education (LCME). The achievement came after a rigorous, two-year self-study process.

Accreditation demonstrates that the Heersink School of Medicine has met and is maintaining high standards set by the LCME, the nationally recognized authority for accrediting medical education programs leading to the M.D. degree in the United States and Canada.

“Maintaining our full LCME accreditation is a testament to the work teams across the school put into the process,” says Craig Hoesley, M.D., senior associate dean for Medical Education. “We took a long look at our institution and began making changes in areas where we felt we could grow to address our challenges, which is the whole point of the accreditation process. Full accreditation is also a signal to students and faculty that the Heersink School of Medicine provides medical education rivaling schools across the country.”

The reaccreditation process began in 2020 with the gathering of information for a database that was divided and read by members of the Self-Study Task Force. The task force was charged to highlight institutional strengths, identify challenges, and put forth solutions to address those challenges.

Student leaders also conducted the Independent Student Analysis, a fully student-led assessment of the medical school’s learning environment, educational program, resources, administration, and services.

The process concluded with a virtual site visit from an LCME review team April 11-13, 2022. The LCME Executive Committee, directed by faculty co-leads Cathy Fuller, Ph.D., professor in the Department of Cell, Developmental and Integrative Biology, and Gustavo Heudebert, M.D., professor in the Department of Medicine, oversaw each step of the process.

“Earning full accreditation from the LCME is a tremendous accomplishment that highlights not only excellence in our medical education mission, but the incredible work of faculty, staff, and students across the school to go through the reaccreditation process and prepare for our virtual site visit,” says Anupam Agarwal, M.D., interim senior vice president for Medicine and interim dean of the UAB Heersink School of Medicine.

The full LCME findings, along with progress notes on our work and improvements, are available at go.uab.edu/lcme. — *Alicia Rohan*



Serving our patients

People come to us from across the country to receive tomorrow's medicine today



UAB achieves xenotransplantation breakthrough

On January 20, the UAB Heersink School of Medicine announced the first peer-reviewed research outlining the successful transplant of genetically modified, clinical-grade pig kidneys into a brain-dead human individual, replacing the recipient’s native kidneys. These positive results demonstrate how xenotransplantation could address the worldwide organ shortage crisis.

In the study published in the American Journal of Transplantation, UAB researchers tested the first human preclinical model for transplanting genetically modified pig kidneys into humans. The study recipient had two genetically modified pig kidneys transplanted in his abdomen after his native kidneys were removed. The organs were procured from a genetically modified pig at a pathogen-free facility.

For the first time, the pig kidneys transplanted were taken from pigs that had been genetically modified with 10 key gene edits that may make the kidneys suitable for transplant into humans. This process demonstrates the long-term viability of the procedure and how such a transplant might work in the real world. The transplanted kidneys filtered blood, produced urine, and, importantly, were not immediately rejected. The kidneys remained viable until the study was ended, 77 hours after transplant.

“This game-changing moment in the history of medicine represents a paradigm shift and a major milestone in the field of xenotransplantation, which is arguably the best solution to the organ shortage crisis,” says Jayme Locke, M.D., director of the Comprehensive Transplant Institute in UAB’s Department of Surgery and lead surgeon for the study. “We have bridged critical knowledge gaps and obtained the safety and feasibility data necessary to begin a clinical trial in living humans with end-stage kidney failure disease.”

Gene editing in pigs to reduce immune rejection has made organ transplants from pigs to humans possible, which could offer help to thousands of people who face organ failure, disease, or injury. “This human preclinical model is a way to evaluate the safety and feasibility of the pig-to-non-human primate model, without risk to a living human,” Locke adds. “Our study demonstrates that major barriers to human xenotransplantation have been surmounted, identifies where new knowledge is needed to optimize xenotransplantation outcomes in humans, and lays the foundation for the establishment of a novel preclinical human model for further study.”

WORLD RECORDS

World’s first peer-reviewed/ published study of a genetically modified pig kidney transplanted into the body of a brain-dead human recipient

World’s first such study on a pig-to-human kidney transplant using genetically modified kidneys with 10 key gene edits that may make the kidneys suitable for direct clinical-grade therapeutic use in humans

World’s first validation of a UAB-developed test for compatibility before xenotransplant

World’s first peer-reviewed/ published study to establish brain death as a viable preclinical human model



UAB’s Xenotransplant team. Jayme Locke (front, second from left) served as lead surgeon.

This effort is supported by biotechnology pioneer United Therapeutics Corporation, which awarded a grant to UAB to launch the innovative xenotransplantation program. Revivicor, Inc., a subsidiary of United Therapeutics, provided the genetically modified pig that was the source of the investigational xenotransplant kidneys called UKidney™. This scientific and medical breakthrough would not have been possible without the recipient, Jim Parsons, 57, or his family. Parsons was a registered organ donor and wanted his organs to help others upon his death, but his organs were not suitable for donation. His family permitted UAB to maintain Parsons on a ventilator to keep his body functioning during the study.

“Mr. Parsons and his family allowed us to replicate precisely how we would perform this transplant in a living human. Their powerful contribution will save thousands of lives, and that could begin in the very near future,” Locke says. “Because of his gift, we have proposed this to be known as ‘The Parsons Model.’” —Tyler Greer

“This game-changing moment in the history of medicine represents a paradigm shift and a major milestone in the field of xenotransplantation, which is arguably the best solution to the organ shortage crisis”

JAYME LOCKE

Clinic transforms cardiac care



“Many inherited cardiovascular conditions like abnormally high cholesterol, cardiomyopathy, and arrhythmias can be managed through screenings, follow-ups, prevention, and other treatment options.”

PANKAJ ARORA

Heart disease is the leading cause of death in the United States, and while lifestyle factors play a major role in the risk of cardiovascular diseases, experts from the UAB Cardiovascular Institute have determined that genetics may also play a role. The UAB Cardiogenomics Clinic, which launched in 2021 and is one of only two clinics of its kind in the Southeast, provides genomic counseling, a comprehensive cardiovascular assessment, and a treatment plan for common cardiovascular conditions such as hypertension, heart attacks, heart failure, stroke, valvular heart disease, and diseases of blood vessels.

The clinic has already received multiple family referrals. “Many inherited cardiovascular conditions like abnormally high cholesterol, cardiomyopathy, and arrhythmias can be managed through screenings, follow-ups, prevention, and other treatment options,” says Pankaj Arora, M.D., an associate professor in the UAB Division of Cardiovascular Disease and director of the UAB Cardiogenomics Clinic and the \$12 million NIH-funded Cardiovascular Clinical and Translational Research Program.

“We have a better understanding now that the risk of high blood pressure and heart attacks is determined by a composite of common genetic variations summarized as a polygenic risk score,” says Vibhu Parcha, M.D., a clinical research fellow. “These genetic risk scores help accurately predict the risk of future cardiovascular events and allow us to tailor our treatment plan. However, the clinical integration of these tools is still ongoing. The UAB Cardiogenomics Clinic is one of the few sites nationwide where this is being pursued.”

Arora has received three RO1 grants since April 2022 totaling over \$11 million. All three grants involve the study of heart hormones called natriuretic peptides (NPs) that regulate cardiometabolic health. One study will investigate how NPs affect cardiometabolic health among Black Americans and another will investigate how NPs affect nocturnal high blood pressure.

The third grant, awarded in June 2022, is looking at the relationship between NPs and glucose metabolism. The \$3.7 million grant from the National Heart Lung and Blood Institute will study how genetically determined differences in NP levels regulate the handling of glucose metabolism and use of energy while resting and while exercising. The grant is being used to fund a first-of-its-kind clinical trial that will recruit healthy individuals through a “genome-first” approach and perform deep metabolic phenotyping to understand the underlying mechanisms responsible for the regulation of the body’s metabolism through NPs. The study may also unravel a potentially new line of precision medicine therapeutics.



Vibhu Parcha and Pankaj Arora in the UAB Cardiogenomics Clinic.

Researchers believe that genetically determined low NP levels may contribute to some individuals’ having a poor glucose metabolism and a low amount of any exercise. Individuals with lower circulating NP levels are predisposed to a higher risk of cardiometabolic diseases such as diabetes, high blood pressure, heart attacks, stroke, and heart failure.

“We are enrolling individuals with and without a common genetic variant that predisposes them to have low NP levels. The study participants then undergo a comprehensive metabolic assessment to understand the influence of genetically determined low NP levels,” Arora says.

Through past research, Arora and colleagues across the country have shown that certain RNA-based regulators control the production of NPs and serve as potential therapeutic targets. Arora and his colleagues are studying how these regulators can be targeted for a precision medicine approach to the treatment of common cardiometabolic diseases.

“There are certain RNA-based regulators that control the production of good heart hormones that were discovered by our group of researchers,” Arora says. “These regulators reduce the production of NPs in individuals with a low NP genotype and may serve as potential therapeutic targets for the treatment of high blood pressure, diabetes, pre-diabetes, and heart failure.” – Anna Jones

Individuals with lower circulating NP levels are predisposed to a higher risk of cardiometabolic diseases.



Trauma surgeon brings expertise to war-torn Ukraine

In April 2022, when John Holcomb, M.D., FACS, a professor in the UAB Division of Trauma and Acute Care Surgery, was asked if he would join a medical nonprofit to assist surgeons in Ukraine amid Russia's invasion, he didn't hesitate to volunteer. After clearing his plans with division leadership, and, of course, his wife, he was on a plane four days later. Holcomb has since made three trips to Ukraine with the Global Surgical and Medical Support Group (GSMSG), a nonprofit that takes medical care and training to crisis zones across the world.

Holcomb, a retired Army colonel with 23 years of service, is no stranger to the combat zone. He served in multiple combat deployments, including in Mogadishu, Somalia, where he was a part of the surgical team that delivered 48-hour nonstop care to soldiers during the battle that inspired the book and film "Black Hawk Down." He later served as the commander of the U.S. Army Institute of Surgical Research and Trauma Consultant for the Army surgeon general.

Holcomb is also a renowned trauma researcher and his findings, including the benefits of whole blood resuscitation and tourniquets, have improved both combat casualty care and civilian trauma care. He has helped redesign the evacuation system for wounded soldiers and standardize modern military medical care.

Each two-week rotation with GSMSG in Ukraine for Holcomb includes working with a civilian hospital and burn center in Lviv. He provides individual patient care in the operating room, ICU, and on the hospital floors. He also advises on complex wounds, teaches combat care, gives lectures, works with medical students and residents, and is helping to refine the systems of care and propose policy updates.

Holcomb says the majority of the casualties in war are civilians, and the injuries he's seen in Ukraine mirror what he saw in Iraq and Afghanistan: amputations and soft tissue injuries caused by explosive weapons. "The uniforms and country are different but human anatomy is the same," Holcomb says. "The destruction of the human body is the same."

The doctors he works with in Ukraine are open to the hard-won lessons learned by the U.S. military, but Holcomb says there's a learning curve on the battlefield. "Our goal is to compress that curve from a couple of years to a couple of months."

One such hard-won lesson? The immense benefit of whole blood—not just blood products—for trauma resuscitation. He says within a few weeks of his first visit, the hospital made the switch to whole blood.

Holcomb says there's also an emotional component in the support he provides the Ukrainian surgeons, who, while experienced in caring for the severely injured, are taking on the new challenge of caring for civilians with combat injuries sustained during a war taking place in their home country. "Sometimes it's saying, what you're doing is exactly right."

— Allie Hulcher



"The uniforms and country are different but the human anatomy is the same. The destruction of the human body is the same."

JOHN HOLCOMB



Expanding care

In 2022, UAB Medicine expanded its care capacity and programs across the state through new partnerships, affiliations, and planned facilities. They include, among others:

Northwest Regional Health, previously known as Northwest Medical Center in Winfield, Alabama, entered into a management agreement to become a member of the UAB Health System, following action by the respective boards of both organizations. The agreement, and the name change to Northwest Regional Health, went into effect on January 1, 2022. Northwest Regional joins a growing number of other Alabama hospitals as part of the UAB Health System Community Network. UAB Medicine has already partnered with Northwest Regional for telehealth services, including tele-stroke, tele-critical care, and tele-nephrology with inpatient dialysis.

In August, Northwest Regional Health and UAB Medicine opened a new UAB surgery clinic in Winfield, led by Greg Kennedy, M.D., Ph.D., the John H. Blue Chair of General Surgery.

The new UAB Callahan Eye – Pelham Clinic opened on March 14, providing nationally recognized eye care for residents of Pelham, Alabama. The 4,000-square-foot clinic offers access to pediatric and comprehensive eye care specialists, houses a state-of-the-art diagnostic imaging center, and includes an on-site optical store. Services include family eye care, eye exams, cataract evaluations, glaucoma screenings, cornea diagnosis and treatment, and contact lens evaluations.

In May 2022, Ascension St. Vincent's Chilton began partnering with UAB Medicine to bring a tele-critical care unit and tele-stroke unit to the residents of Chilton County. As of September 2022, it is one of 11 active sites across the

state to join UAB's tele-critical care program and one of 20 active sites to join the tele-stroke program.

When patients come to Ascension St. Vincent's Chilton emergency department presenting with stroke-like symptoms, the team utilizes the tele-stroke program to request an on-demand stroke consult. UAB specialists connect via video into hospital rooms to conduct remote exams of patients and work with Ascension St. Vincent's care teams to develop treatment plans.

UAB's responding neurologists assess patients using the NIH stroke scale and a physical exam, assisted by the onsite emergency room physician or nurse. The neurologist reviews the patient's CT scans and provides a recommendation based on their assessment. Ascension St. Vincent's Chilton then provides inpatient care in their hospital or transfers the patient to the appropriate level of care that is needed.

On May 6, UAB broke ground on an inpatient rehabilitation facility to replace the existing Spain Rehabilitation Center (renderings below and on facing page). The new building is slated to open in 2025 and will focus on neurorehabilitation for patients following stroke, traumatic brain injury, and spinal cord injury. It will also include a seizure monitoring unit that offers clinical, research, and education services to patients with epilepsy.

The \$156.7 million, 350,000-square-foot project will be 11 stories tall and will hold 78 rehabilitation beds, 28 acute care beds, and state-of-the-art technology specifically designed to provide comprehensive rehabilitation care. It will also be designed to foster activities of daily living within each of its indoor and outdoor environments.

The top floor will be home to a garden where patients can work on goals around mobility, cognition, and range of motion. The bottom floor will have a terrain park for patients to practice navigating different terrains, including gravel, mulch, turf, sand, wood decking, crushed stone, and paving stones. There will also be a city street simulation with cross walks, curbs, sidewalk ramps and traffic lights, and an auto simulation that allows patients to learn and practice car transfer skills in the comfort and safety of a clinical setting. Patients and their families will also be able to enjoy a putting green and basketball court. — *Bob Shepard, Anna Jones*



This page and opposite: Renderings of the new 350,000-square-foot, 11-story inpatient rehabilitation facility that is slated to open in 2025.





Eric Wallace consults with a patient via video as part of UAB's telehealth service.

UAB experts support rural hospitals

Rural hospitals can tap into the expertise and specialty services offered by UAB Medicine thanks to a growing network of telehealth partnerships. These video visits ensure that a doctor is always in, providing personal care from many miles away.

"Every hospital we provide telehealth services to, we're on the same team as the doctors who work there day-in and day-out," says Eric Wallace, M.D., medical director of Telehealth at UAB Hospital and an associate professor in the UAB Division of Nephrology. "These rural hospitals are getting 24-7 coverage of specialty care that they previously didn't have."

The idea for the telehealth service began in 2016, when Wallace became the first physician in the country to replace a comprehensive, in-person doctor/patient visit with a telehealth visit for home dialysis. Two years later, UAB entered into a telehealth agreement with Whitfield Regional Hospital in Demopolis.



Since then, UAB's telehealth network has expanded to 21 active sites throughout the state, with more in various stages of discussion and planning. Telehealth services offered by UAB include tele-nephrology, tele-critical care, tele-infectious diseases, tele-cardiology, tele-stroke, and tele-general neurology.

Wallace says telehealth provides significant benefits for the hospitals involved, the state of Alabama, and UAB itself. "There are major upsides for this at rural facilities," Wallace says. "The patient gets better care faster, and by keeping the patient there the hospital gets the revenue."

The idea for the telehealth service began in 2016, when Wallace became the first physician in the country to replace a comprehensive, in-person doctor/patient visit with a telehealth visit for home dialysis.

Meanwhile, Wallace says the state benefits because it will be easier to recruit and retain doctors in rural areas. "Most doctors train in academic environments where they have access to everything," Wallace says. "Then all of a sudden, we ask them to work in a rural area where they don't have access to subspecialty support."

"I think hospitals that have access to telehealth support are going to be able to recruit doctors to their area much easier. We're already seeing some of that. They feel better knowing UAB has their back by giving them access to the services they need."

And finally, Wallace says that offering telehealth provides a major benefit to UAB. He points out that UAB Hospital is always at or near capacity, so treating patients in their home community instead of transferring them to Birmingham frees up much-needed beds at UAB.

In recognition of his role in developing UAB's telehealth efforts, Wallace was named the 2021 Community Star of Alabama by the National Organization of State Offices of Rural Health, and he has presented at numerous national meetings about UAB's telehealth outcomes.

"The only way rural health care in this country is going to move forward is with telehealth support," Wallace says. "And UAB has a head start on many states with what we've already been able to provide." – Cary Estes

UAB Medicine 2022 accolades

UAB Hospital named Best Hospital in Alabama by U.S. News & World Report

U.S. NEWS & WORLD REPORT RANKINGS

No. 5	No. 31
Obstetrics and Gynecology	Cardiology/Heart Surgery
No. 10	No. 36
Rheumatology	Geriatrics
No. 20	No. 40
Rehabilitation	Diabetes and Endocrinology
No. 22	No. 50
Otolaryngology	Pulmonology/Lung Surgery

RANKED AS HIGH-PERFORMING

Cancer
Neurology/Neurosurgery
Gastroenterology/GI surgery

UAB Medicine earned Women’s Choice Awards
“Best Hospital” designations for:

Bariatric Surgery	Stroke Care
Comprehensive Breast Care	Women’s Services
Cancer Care	Mammogram Imaging Center
Minimally Invasive Surgery	Patient Experience
Obstetrics	

UAB Medicine received the **LGBTQ+ Healthcare Equality Leader** designation from the Human Rights Campaign Foundation, which has recognized UAB Medicine for its leadership in diversity, equality, and inclusion every year since 2016.

UAB Medicine was again named to the **NRC Health Top 100 Consumer Loyalty** list, a ranking that recognizes the top U.S. health care organizations for earning exceptional loyalty ratings from their patient populations.

UAB Hospital received **Healthgrades’ Outstanding Patient Experience Award** again for 2022, placing it top in the nation for overall patient experience based on nine measures, using data collected from surveys of the hospital’s patients, related to doctor and nurse communication, hospital cleanliness and noise levels, and medication and post-discharge care instructions.



Driving discoveries

UAB is swiftly moving research from the bench to the bedside to change lives and improve health

Study details pediatric hepatitis outbreak

According to the researchers, the timing of the outbreak during the COVID-19 pandemic is noteworthy. COVID-19 is known to cause elevation of liver enzymes and multisystem inflammatory syndrome in children.

From October 2021 to February 2022, nine pediatric patients in Alabama were diagnosed with severe hepatitis. Pediatric physicians from the Heersink School of Medicine and Children's of Alabama began investigating the unusual cluster. They found only one preliminary link between the cases—adenovirus within the blood.

In a paper published in the New England Journal of Medicine in July 2022, researchers from UAB, Children's of Alabama, the Alabama Department of Public Health, and the Centers for Disease Control and Prevention present findings from the investigation of the nine cases. The findings showed while the adenovirus remains a commonality among the cases, it is unclear whether adenovirus infection itself, or a combination of the virus with other factors, led to the pediatric hepatitis outbreak.

"Severe hepatitis and acute liver failure caused from adenovirus is rarely seen even among immunocompromised pediatric patients, which further raised flags when nine previously healthy children were hospitalized with varying degrees of illness, liver injury, and even liver failure that led to transplants," says Helena Gutierrez, M.D., medical director of the UAB and Children's Pediatric Liver Transplant Program and lead author of the paper.

The nine patients were between 2 and 11 years old and resided in different areas in Alabama, and none had known contact with each other. Three patients developed acute liver failure, with two requiring subsequent liver transplants. The remaining six developed severe hepatitis but not acute liver failure.

Upon hospital admission, all nine patients tested positive for adenovirus in the blood. The viral level of adenovirus was higher in the patients who developed acute liver failure. Liver biopsies showed varying degrees of inflammation but were negative for adenovirus in the tissue.

"There have been similar incidents described in the past where patients with severe hepatitis had adenovirus in the blood but not detected in the liver biopsies," says Henry Shiao, M.D., pediatric hepatologist at UAB and Children's of Alabama. "It's unclear if the biopsies missed evidence of adenovirus presence due to sampling error or if the infection could be playing an indirect role, such as triggering a dysregulated immune response."

Residual blood samples from five patients contained enough virus to be sequenced by Wadsworth Center, New York State Department of Health, where the adenovirus-41 strain was identified. Three samples were identical to a strain isolated in the Netherlands in 1981, one sample was identical to a strain isolated in the 1970s, and the last sample had one amino acid change when compared to other known sequences. Sequencing also found three distinct hexon variants, a major coat protein found in adenoviruses. The three hexon variants suggest, if adenovirus infection caused the hepatitis, then it was not driven by a single new or novel adenovirus strain.

According to the researchers, the timing of the outbreak during the COVID-19 pandemic is noteworthy. COVID-19 is known to cause elevation of liver enzymes and multisystem inflammatory syndrome in children. The nine children tested negative for COVID-19 upon hospital admittance but did not receive antibody testing, so it remains unclear whether COVID-19 played a role in the outbreak as well.

The nine Alabama cases were the first of many pediatric hepatitis cases found across the United States and Europe, with the World Health Organization reporting 920 probable cases from 33 countries as of June 24, 2022. — *Hannah Echols*





Cancer Center's banner year

The O'Neal Comprehensive Cancer Center at UAB, the only National Cancer Institute-Designated Comprehensive Cancer Center in Alabama and in a four-state region, celebrated its 50th anniversary last summer.

"Fifty years of scientific discovery and clinical excellence have brought us to this special moment," said Barry Sleckman, M.D., Ph.D., director of the O'Neal Comprehensive Cancer Center. "I am proud of and humbled by our outstanding team of clinicians and investigators, all of whom came to UAB with the same goal: to shape the future of cancer care. None of today's achievements would be possible without the lasting contributions of those who came before us. They have set the stage for a very bright future at the O'Neal, a future that will relieve the cancer burdens and cancer disparities for all people in Alabama."

The O'Neal Comprehensive Cancer Center is home to an outstanding faculty of roughly 400 clinicians, scientists, and clinician-scientists, many of whom are internationally and nationally recognized for their expertise in oncology. In 2021, the O'Neal Comprehensive Cancer Center served 9,700 new cancer patients and enrolled 439 participants in clinical trials, which is one way physicians and scientists actively participate in efforts to improve cancer therapies, diagnostic techniques, and prevention strategies.

Investigators and physicians at the O'Neal Comprehensive Cancer Center have shaped cancer care for both patients and physicians. From bench to bedside, the O'Neal Comprehensive Cancer Center is at the forefront of improving cancer prevention, diagnosis, and treatment, and scientists and clinician-scientists at UAB have pioneered advances in chemotherapy, surgery, radiotherapy, immunotherapy, and nutrition. The center's community outreach efforts provide medically underserved populations in the region with an array of education and prevention programs.

In 2018, the center was the beneficiary of a \$30 million naming gift from the O'Neal family and shareholders—UAB's largest single gift at that time—enabling it to transition from the previously named UAB Comprehensive Cancer Center to the O'Neal Comprehensive Cancer Center at UAB.

The O'Neal Comprehensive Cancer Center has been continuously funded by the NCI since its inception. In June 2022, the center was awarded its latest renewal, a five-year Cancer Center Core Support Grant of \$27,477,570 from the NCI, receiving the highest impact score in its history. This prestigious federal grant renewal provides support for UAB's cancer research program through 2026. — Julie Miller, Yvonne Taunton

FACTS & FIGURES

400

Faculty

9,700

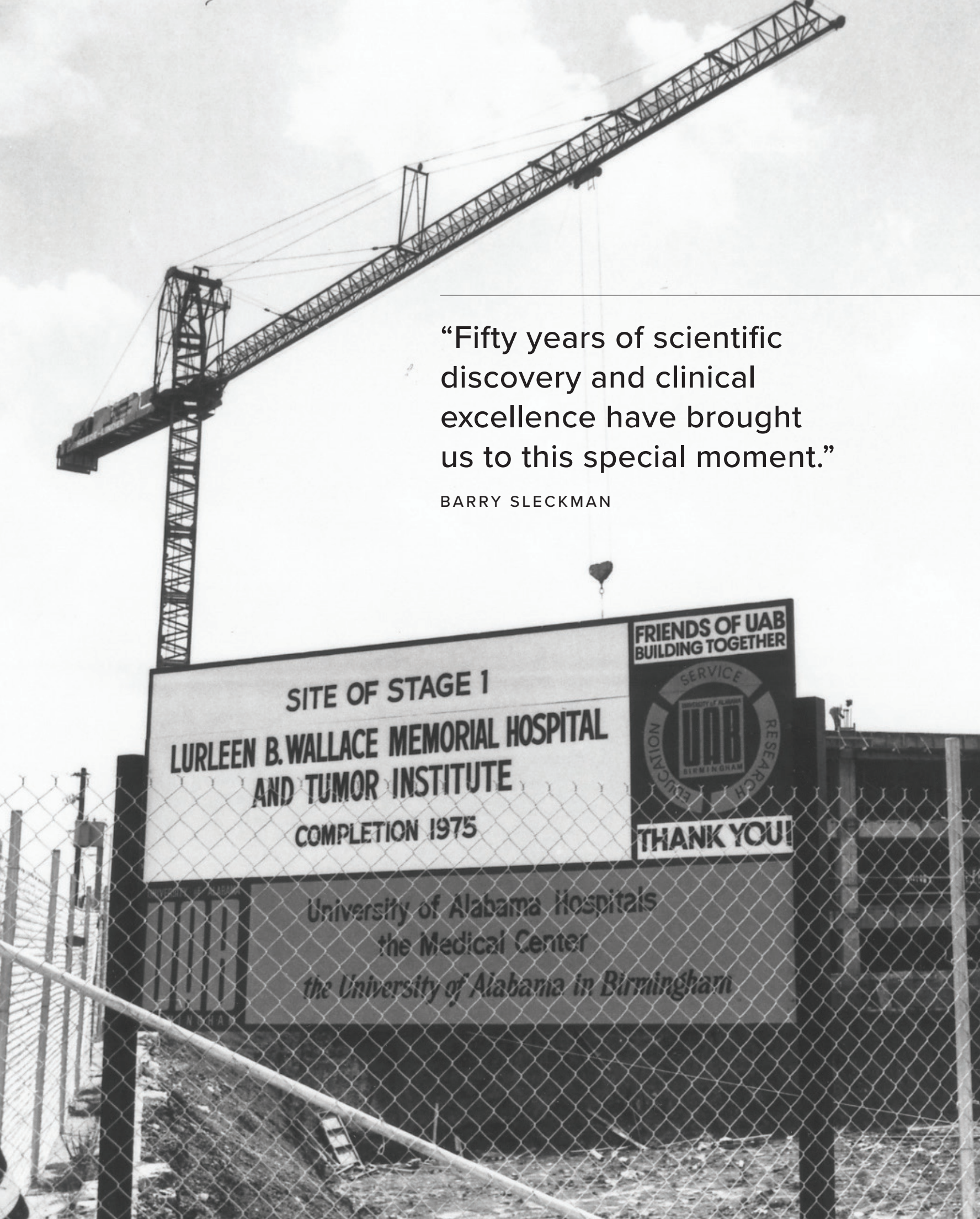
Patients Served in 2021

439

Clinical Trial Participants in 2021



Barry Sleckman joined the O'Neal Comprehensive Cancer Center as director in 2020.



“Fifty years of scientific discovery and clinical excellence have brought us to this special moment.”

BARRY SLECKMAN



Breaking ground on research growth

On April 11, 2022, UAB broke ground on the Altec/Styslinger Genomic Medicine and Data Sciences Building and the Marnix E. Heersink Institute for Biomedical Innovation Conference Center. The ceremony included senior leaders from UAB, UAB Medicine, the Heersink School of Medicine, the University of Alabama System Board of Trustees, key donors, and representatives of state and local governments, including Alabama Governor Kay Ivey.

The 175,000-square-foot building will be iconic in its architecture, which features a double-helix design, and profound in its impact locally, statewide, and globally. It will bring together researchers, equipment, and staff for the Hugh Kaul Precision Medicine Institute, the Informatics Institute, the Marnix E. Heersink Institute for Biomedical Innovation, the Mary Heersink Institute for Global Health, and translational scientists from many different disciplines.

The project will increase the national and global competitiveness of both UAB and the state of Alabama in research, innovation, commercialization, and economic development. UAB will recruit upward of 75 additional investigators and some 350 new support staff over the next five-plus years to work alongside the talented and renowned team of researchers already in place. The leading-edge research they conduct in the facility will attract an estimated \$100 million in additional research funding annually.

The project is being funded through \$50 million from the state of Alabama—the largest-ever investment from the state in a university facility. An additional \$5 million from Jefferson County also supports the project, as do funds supplied by UAB donors Altec/Styslinger Foundation and Dr. Marnix and Mary Heersink.

The Altec/Styslinger building will include space for computational research, research support, offices, administrative and scientific collaboration, and meeting spaces designed to meet the specific needs of genomics and precision medicine investigators. Initial initiatives will include cancer research, neuroscience research, rehabilitation medicine and pediatric research, as well as research into the ongoing COVID-19 pandemic. In addition, the new collaborations will include clinicians serving on the front lines of patient care and enhance translational health initiatives already active at UAB.

— Bob Shepard

ESTIMATED IMPACT

\$100M
Additional Research
Funding

75
Additional Investigators

350
Additional Support Staff

Selwyn Vickers, former dean of the Heersink School of Medicine, speaks at the April 11 groundbreaking ceremony.



Heffron becomes director of AIDS research center

On July 1, 2022, Renee Heffron, Ph.D., MPH, joined the Heersink School of Medicine as the new director of the Center for AIDS Research (CFAR), one of the first seven CFARs established by the National Institutes of Health in 1988. Heffron says she is excited by the opportunity to build on the center's 35-year history while fusing it with even higher levels of community engagement, partnerships, and inclusion to bring a wide variety of perspectives to the center's work.

"The Center for AIDS Research has such a strong history," says Heffron, who previously served as a member of the faculty of Global Health at the University of Washington. "It began with a strong foundation in basic science and discovery, and Dr. Michael Saag (founding co-director of the center who retired from UAB in 2021) added his very strong vision and focus on clinical care and clinical research. We're going to carry on those strengths and then add to it in the realm of implementation science and community-engaged research."

Heffron holds a Ph.D. from the University of Washington and an MPH from Tulane University. Dedicated to HIV research throughout her career, she also brings a global perspective through her affiliation with the International Clinical Research Center and partnerships throughout Africa.

She says she was drawn to the chance to work in a part of the United States with unique challenges around HIV. "To be able to work in this region, which is really the hardest hit in the country in terms of HIV and new infections, felt like a really important opportunity," she says.

"Society plays a big role in the way people get or don't get care," Heffron continues. "It's about access and how the overlay of poverty and complicated lives prevent people from being able to come into the clinic, advocate for themselves, and receive care. We're focusing on how to leverage communities, families,

friends, and peers to support people in accessing HIV prevention services and sustaining their treatment."

Heffron's goals for her future research include focusing on new forms of HIV prevention and prevention delivery systems to improve access to people in a wide variety of life circumstances. "Medications have changed so much since the epidemic began, but it's still at least one pill a day if not more for some people, and that can be challenging," Heffron says. "But there's a lot of great data looking at injectable antiretrovirals for treatment and prevention."

"To be able to work in this region, which is really the hardest hit in the country in terms of HIV and new infections, felt like a really important opportunity."

RENEE HEFFRON

We are also looking a monthly pill, or an injection that's every six months instead of every two months, trying to reduce barriers to access."

Heffron sees the promise for alternate models of care coming from an inclusive approach to the center's work. "I'm excited about the way we have started to engage and incorporate community voices and ideas into our research," she says. "We're putting people living with HIV and at risk for HIV at the table and giving them a voice. We've done it in some of the trials I've been involved with, we've done it with global community advisory groups, and a lot of the investigators are doing it in Alabama by having co-investigators from different communities, organizations, or even the state public health department. We want to have all those voices represented and then find the way forward together."

— Rosalind Fournier

Introducing new research focus areas

Since 2016, the Heersink School of Medicine has consistently ranked within the top 25 in National Institutes of Health research funding and the top 10 among public schools.

The priorities for supporting the extraordinary success of our research enterprise were guided by five research focus areas that were identified in 2014 as part of the school's AMC21 Strategic Plan. They included Precision Medicine; Informatics; Fundamentals of Basic Science Discovery; Inflammation, Infection, and Immunity (I3); and Population Health, Health Disparities, and Outcomes Effectiveness Research.

In August 2022, Tika Benveniste, Ph.D., senior vice dean for Research and associate vice president for Medicine and Basic Sciences, announced that school leadership would take a fresh look at the research focus areas and consider the best way to position our school for future growth. With considerable input from stakeholders across the school, four new research focus areas were identified:

Disruptive Technology Empowering Precision Health (D-TECH): Led by George Netto, M.D., Robert and Ruth Anderson Endowed Chair in the Department of Pathology, D-TECH takes a data-driven approach to disease prevention, including diagnostics, genetics, and biology to improve health outcomes.

Health Equity: Led by Michael Mugavero, M.D., director of the Center for Outcomes Effectiveness Research and Education and co-director of the Center for AIDS Research and the Center for Clinical and Translational Science, this focus area seeks to understand underlying drivers and disseminate multi-level interventions to lessen the burden of intersectional

inequities, and to ensure access to quality, affordable health care and the opportunity for a healthy life for all people.

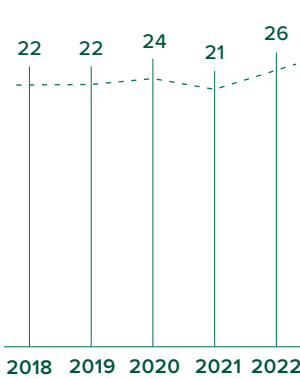
Infection, Inflammation, Immunity, and Immunotherapy (I-4ward): Led by Frances Lund, Ph.D., professor in the Department of Microbiology and director of the Immunology Institute, the I-4ward focus area spans biomedical research, while the many subspecialties it encompasses—from microbiology to cell biology, biochemistry, pathology, and more—seek to understand the pathophysiology of acute and chronic infectious, inflammatory, and immune-based diseases and therapies.

Brain Health and Disease Across the Lifespan: Led by Jeremy Day, Ph.D., associate professor in the Department of Neurobiology and director of the Comprehensive Neuroscience Center, this focus area will transform understanding of brain development, aging, and health, and leverage knowledge to improve treatments for brain diseases.

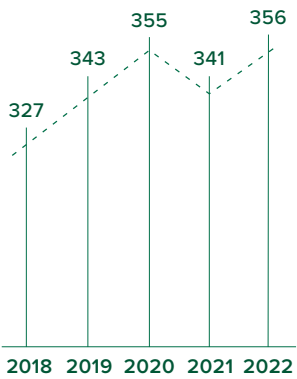
According to Benveniste, these focus areas will help position the school to grow over the next five to seven years. She says that faculty engagement was central throughout the selection process, first with a call for proposals followed by a crowdsourcing campaign for comments. From this effort, the Research Strategic Planning Steering Committee and the AMC21 Research Steering Committee, with input from the research leadership in the school and across campus, identified the four new research focus areas.

“I am excited that our new research focus areas provide a strong foundation for the future of scientific impact and growth here at UAB,” Benveniste says. — *Mary Ashley Canevaro*

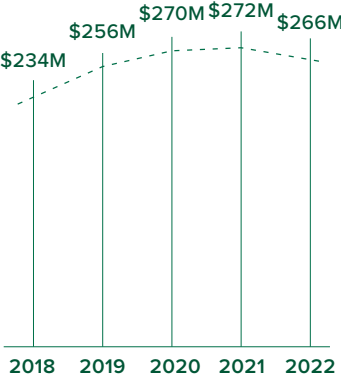
NIH RANKING
#26



NIH FUNDED PIS
356



NIH FUNDING
\$266M



As of Nov. 30, 2022; not final FY22 total

UAB ranked in the top 8% in U.S. News & World Report's Top Global Universities ranking

Based on its academic research portfolio and regional and global reputation, UAB ranked 160th out of more than 2,000 universities worldwide. UAB placed 57th out of 280 American universities and was one of just 106 U.S. schools in the top 500.

- Seven areas in the Heersink School of Medicine ranked in the top 100 globally:
- 34 Surgery
 - 42 Clinical Medicine
 - 45 Infectious Diseases
 - 59 Immunology
 - 64 Cardiac and Cardiovascular Systems (tie)
 - 64 Oncology (tie)
 - 70 Endocrinology and Metabolism

LARGEST NEW NIH AWARDS

- \$5.5M O'Neal Comprehensive Cancer Center Support Grant
- \$1.7M Trauma Resuscitation with Group O Whole Blood or Products (TROOP) trial
- \$1.4M Influence of thalamic IL-33 signaling in aging-associated exacerbation of cognitive impairment after brain injury via microglial dysfunction and tau pathology
- \$1.3M Defining the chemical perturbome of neural development and activity
- \$1.3M Recruitment and Engagement in Care to Impact Practice Enhancement (RECIPE) for sickle cell disease

\$715M

in total research funding at UAB—a 50% increase and additional \$237 million during the past five years

INNOVATION AT UAB

- 105 intellectual property disclosures (IPDs)
- 49 provisional patent applications filed
- 8 U.S. patents issued
- 9 licenses executed
- 4 start-ups launched
- 9 start-ups approved, poised for launch
- \$5.58M in revenue generated

Care for everyone

We're reaching out from the confines of our campus to improve health in underserved areas

MHRC marks 20th year with new name

There have long been significant differences in health across race, income, education, and geographic location. The impact of these differences is especially acute throughout Alabama and the Deep South.

For 20 years, the UAB Minority Health & Health Disparities Research Center (MHRC) has taken a comprehensive, science-first approach to improve the health of people in historically under-resourced areas, through efforts in research, training, and community engagement. As the center reflected and planned its next phase, to create equitable health outcomes for all, the MHRC changed its name to the UAB Minority Health & Health Equity Research Center (MHERC) in September 2022.

The inspiration for the center came on a bus ride through the Mississippi Delta in the early 2000s. “We passed by these tiny houses, and in front of one were maybe eight or nine children,” says Center Director Mona Fouad, M.D., MPH. “I thought, if we tell a woman living there to get a mammogram, how is she even going to get there? What other health issues does she face? What about her children? We can’t just tell her to get a mammogram and ignore all the other challenges.”

After returning from that trip, Fouad, along with Edward Partridge, M.D., director emeritus of the O’Neal Comprehensive Cancer Center at UAB, and Selwyn Vickers, M.D., FACS, former Heersink School of Medicine dean, founded the UAB Minority Health & Health Disparities Research Center in 2002. Through National Institutes of Health- and Centers for Disease Control-funded projects, the MHERC has been at the forefront of health disparities research, garnering more than \$165 million to address such inequities. Additionally, since its inception, the center has provided nearly \$7 million in funding to 146 health disparity scientists.

The MHERC’s training programs have welcomed generations of new scientists to the field. Leveraging strong, enduring partnerships with other institutions—including historically Black colleges and universities—the center has reached more than 1,000 scholars at the undergraduate, graduate, postdoctoral, and faculty levels.

Since the beginning, a guiding principle of the MHERC has been that research should be grounded in trusting, respectful, and mutually beneficial relationships that last beyond one project. The center’s team of community engagement professionals facilitate those partnerships, nurturing relationships with nearly 200 partners and 100 advisory board members.

While the center’s work has been remarkable, it is not yet done. “We’ve made great strides in understanding the underlying causes of health disparities,” Fouad says. “But, looking to the future, we need to move beyond documenting and understanding disparities. We need to achieve health equity for all populations.” – Jessica Snyder

Fouad appointed to AVP role

Last summer, Mona Fouad, M.D., MPH, MHERC director, senior associate dean for Diversity and Inclusion in the Heersink School of Medicine, and director of the Division of Preventive Medicine, joined UAB’s Office for Diversity, Equity and Inclusion as associate vice president beginning July 1, 2022. She also received the 2022 Vilcek-Gold Award for Humanism in Healthcare, which is given to outstanding immigrant health care professionals in the United States and honors the positive impact that accessible, humanistic, and compassionate care has on public health.

Live HealthSmart Alabama (LHSA), one of the MHERC’s major initiatives, is a transformational effort to lift Alabama out of the bottom in national health rankings by advancing good nutrition, physical activity, and preventive wellness. Fueled by a network of more than 100 partners, trusted community relationships, proven neighborhood revitalization strategies, and layered programming, LHSA strives to decrease the incidence of chronic disease and increase health equity across the state.



Left to right: Mona Fouad, director of the Minority Health & Health Equity Research Center and CEO of Live HealthSmart Alabama, and Teresa Shufflebarger, chief administrative officer of Live HealthSmart Alabama.



Tuskegee partnership fosters inclusivity

FIRST Program hires will be designated as Benjamin-Carver Scientists in honor of two barrier-breaking investigator leaders—18th U.S. Surgeon General Regina Benjamin, M.D., and humanitarian George Washington Carver.

In November 2021, UAB and Tuskegee University received a first-of-its-kind, \$13.7 million grant from the National Institutes of Health Common Fund to further inclusive excellence in research across both institutions. The UAB/Tuskegee Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Partnership is designed to create systemic and sustainable cultural change at both institutions and foster inclusive excellence in research.

Last summer, the program began recruiting 12 new, early career research faculty members in areas of research strength and opportunity across both institutions. These areas include cancer, obesity and diabetes, cardiovascular disease, and neuroscience, with an emphasis on health disparities and health equity research.

FIRST Program hires will have simultaneous appointments at both institutions and will be designated as Benjamin-Carver Scientists in honor of two barrier-breaking investigator leaders—18th U.S. Surgeon General and Heersink School of Medicine alumna Regina Benjamin, M.D., and research scientist, Tuskegee faculty member and humanitarian George Washington Carver.

Benjamin-Carver Scientists will have access to a comprehensive support infrastructure, including a mentoring team, institutional research navigators, and professional development opportunities, to help mitigate the difficulties experienced by new hires and accelerate the development of collaborative networks and peer support. Learn more at sites.uab.edu/benjamin-carver-first.

UAB is also partnering with Tuskegee University on a program by which TU students may enroll in the Accelerated Bachelor to Master's Program in Public Health at the UAB School of Public Health.

Last fall, UAB signed a memorandum of understanding with Tuskegee University for future relationships, ensuring that these types of innovative and mutually beneficial partnerships will continue to grow and flourish. — *Jessica Snyder*



Reducing disparities in maternal-infant health outcomes

Last July, the American Heart Association announced that it is funding a new \$20 million initiative focused on advancing understanding of the factors underlying the disproportionate impact of pregnancy complications and deaths among Black and Native American people and those living in rural areas.

The Health Equity Research Network (HERN) on Disparities in Maternal-Infant Health Outcomes is part of the American Heart Association's multi-pronged approach to address social determinants of health, while working to improve health equity for all communities. Teams of scientists from six universities, including UAB, will lead community-engaged research projects. The research network's coordinating center, P3 EQUATE Network or Pregnancy and Postpartum/Postnatal Enhancing Access and Quality to Achieve Equitable Maternal and Infant Health, is managed by UAB and led by Alan Tita, M.D., Ph.D., senior vice chair for Research and Innovation in the UAB Department of Obstetrics and Gynecology, associate dean for Global and Women's Health at the Heersink School of Medicine, director of the UAB Center for Women's Reproductive Health, and director of the Mary Heersink Institute for Global Health.

More than one in four pregnancy-related deaths in the United States are tied to poor heart health, especially among people of color, putting both parents-to-be and

their babies at risk, according to the American Heart Association Heart Disease and Stroke Statistics 2022 Update. Maternal mortality is an issue of particular concern for Alabama, which ranks third highest for maternal death rates in the U.S. Moreover, Black/African-American women are three times more likely to die from pregnancy-related causes than White women, according to the Centers for Disease Control and Prevention (CDC).

UAB is leveraging expertise and extensive resources across the P3 EQUATE Network sites and nationally to help train the next generation of pregnancy health equity researchers, providing consultation and guidance, compiling data reports, and coordinating the administration of the initiative. It is also overseeing the establishment of, and providing support and resources to, the five research projects, which began in July 2022.

The P3 EQUATE Network is testing multiple strategies to help people overcome social determinants of health that increase risk for cardiovascular disease and poor pregnancy-related health outcomes. Network institutions include North Carolina Agricultural and Technical State University in Greensboro, Northwestern University in Chicago, The Ohio State University in Columbus, University of North Carolina at Chapel Hill, and University of Pennsylvania in Philadelphia. — *Hannah Echols*

Gift advances Alzheimer’s disease research



Sallie and James Johnson

In October, UAB announced a \$5 million gift to establish the James Milton and Sallie R. Johnson Fund to Support Alzheimer’s Disease Research in the Department of Neurology and the UAB Center for Neurodegeneration and Experimental Therapeutics. The fund will support research through a human cell modeling initiative using a technology called induced pluripotent stem cells (iPSC), which has the potential to significantly advance Alzheimer’s research.

The decision to make the gift was a personal one for the Johnsons. Jim Johnson’s grandmother, mother, and sister have all suffered from the disease, and he is familiar with the toll it takes not just on the person diagnosed but also on the entire family.

“Research like this needs to happen, and UAB needs to be a leader,” Johnson says. “Lots of people have a relative who has Alzheimer’s. I maintain that it’s not fully recognized how traumatic it is. Current treatment is a hopeless continuation of decline for the patient and their family.”

The Johnsons’ gift will enable UAB to hire an iPSC researcher and establish a fully functional and staffed lab to develop the technology for Alzheimer’s research.

“We are deeply grateful to the Johnsons for their generous gift that will dramatically accelerate our research on Alzheimer’s and other devastating neurodegenerative diseases,” says UAB President Ray Watts, M.D.

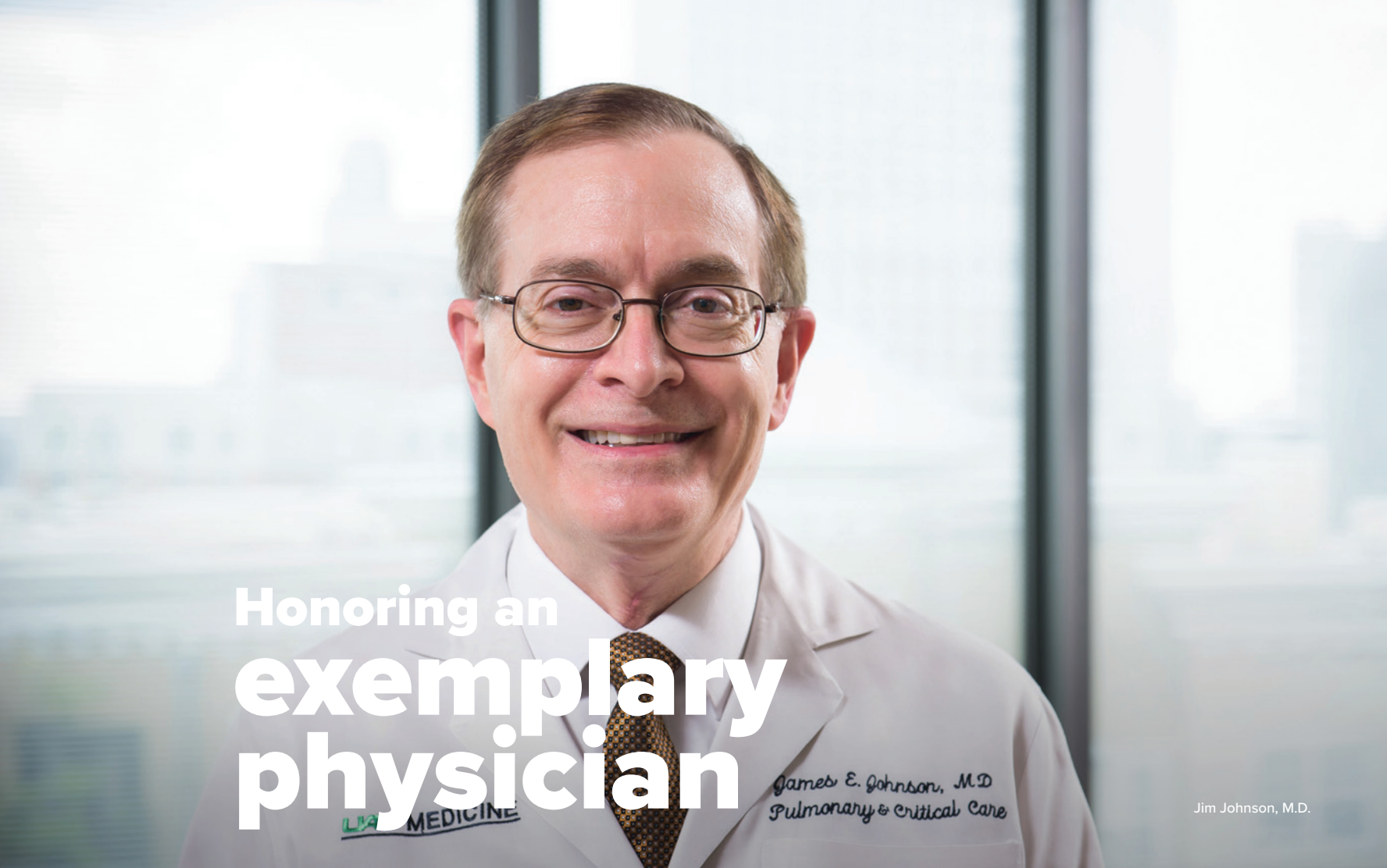
Alzheimer’s disease currently affects more than 6.5 million people in the U.S. and is projected to affect more than 20 million more people over the next 20 years, says David Standaert, M.D., Ph.D., John N. Whitaker Endowed Professor and chair of the Department of Neurology.

After meeting with Standaert and Erik Roberson, M.D., Ph.D., Rebecca Gale Endowed Professor and director of the UAB Alzheimer’s Disease Center and the Center for Neurodegeneration and Experimental Therapeutics, the Johnsons learned they could make the most significant impact by bringing the iPSC technology to UAB.

“It’s an amazing technology,” Standaert says. “For a long time, we thought cell development was a one-way path, and once the cell developed, there was no going back. The discovery of how to make iPSCs changed that and earned a Nobel Prize in 2012. Now, for example, you can grow a skin cell in a dish and turn back the clock and turn it into a stem cell. It can then become any type of cell, so if we’re studying Alzheimer’s, we can induce it to become a brain cell in a dish.”

Jim Johnson says his and Sallie’s gift will create new tools to contribute to the treatment and eventual cure of Alzheimer’s. “We must be successful,” he says. “And we want it to happen at UAB.”

UAB was named an exploratory center for Alzheimer’s research by the National Institutes of Health in 2020—the first step in being designated as a federal Alzheimer’s disease center. — Rachel Burchfield



Jim Johnson, M.D.

Few doctor/patient relationships are like the one between pulmonologist Jim Johnson, M.D., and Merritt Pizitz, his patient of 11 years. In 2022, Pizitz, a prominent Birmingham businessman, decided to honor that relationship by making a planned gift to establish the James E. Johnson Endowed Professorship in Pulmonary and Critical Care in the Division of Pulmonary, Allergy and Critical Care Medicine.

Pizitz says a few years ago he needed a pulmonary specialist and was directed to Johnson. “Over the years, I learned what a warm, kind, humble, and knowledgeable physician he is,” Pizitz says. “Dr. Johnson deserves the honor that goes along with the endowed professorship. His doctor/patient relationship mirrors medicine of the past.”

Johnson joined UAB in 2000 and is himself the holder of an endowed professorship, the first Charles and Alice Hohenberg Professor of Pulmonary and Critical Care Medicine. A graduate of Vanderbilt University School of Medicine, Johnson completed his residency in internal medicine and a fellowship in pulmonary and critical care at Brooke Army Medical Center in San Antonio, Texas, and served in the U.S. Army until 2000, including completing a deployment to the Middle East. He retired from the military as a full colonel in 2000 and has been at UAB for 22 years, currently serving as clinical director of the Division of Pulmonary, Allergy and Critical Care Medicine.

Pizitz says Johnson has gone above and beyond for his care. “I almost died about five years ago from a lung issue,” Pizitz says. “I was critical. He was in my room probably two to three times with my daughter. That’s not his job, going to visit patients in their rooms. I had another small event happen, and he called from out of town and apologized for not being able to see me. He’s just a special man.”

Johnson returns Pizitz’s admiration and respect. “He’s one of these guys that’s larger than life,” Johnson says. “He has a big personality and likes to laugh; he always has a joke and a big smile and is glad to see you.”

This gift will make impact for decades, says Mark Dransfield, M.D., division director of Pulmonary, Allergy and Critical Care Medicine. “This new endowment in honor of Dr. Johnson is a terrific recognition of his service to UAB and his patients,” he says. “Jim is well known across the Heersink School of Medicine and hospital for his excellence in teaching and in patient care. He always goes the extra mile to ensure patients are receiving the best care, both in terms of quality and attention. This endowment will help us retain and reinvest in our faculty for decades to come and knowing that it was named in his honor will encourage future holders to emulate his caring and professionalism.”

— Rachel Burchfield



Personal ties energize
precision
medicine

Alan Breed and Matt Might

It was a day filled with emotion and hopeful anticipation.

Last November, representatives of the Wolverine Foundation, which funds research of rare diseases, arrived at UAB for the dedication of a bench honoring Bertrand Might, who passed away in 2020 at age 12 from a rare neurodegenerative condition.

Bertrand was the son of Matt Might, Ph.D., director of UAB’s Hugh Kaul Precision Medicine Institute (PMI). Might came to UAB in 2017 to lead the PMI and expand the field of precision medicine, which utilizes technologies such as genomic sequencing to personalize disease treatments.

The Wolverine Foundation’s primary benefactor, Alan Breed, has a family member with a rare disease. In an effort to discover effective treatments, the organization has donated funds to PMI and worked directly with Might.

So on this November day, Breed and Might sat together on the bench honoring young Bertrand, linking the painful past with the promising future.

“It was a very moving moment,” Might says. “We talked about how some of what is available to them now is possible only because of what I had been through with Bertrand. So there was kind of this passing of the torch.

“One of the things the Wolverine Foundation appreciates about our institute is we act like a trusted advisor as the foundation has pushed forward in their attempts to find treatments,” Might continues.

Amy McCoee, executive director of the Wolverine

Foundation, says the organization is in the initial stages of developing a potential drug treatment strategy for the Mapk8ip3 genetic mutation in part because of the research being conducted at PMI.

“We were originally drawn to PMI due to Matt Might and his considerable expertise in rare disease work,” McCoee says. “Matt was incredibly patient with our group as we tried to understand this world. He has been unbelievably kind and attentive to our questions and concerns. We became deeply involved with PMI due to the comprehensive solution it offers in this space. It is fast becoming a one-stop shop for rare disease research projects.”

In addition to the bench dedication ceremony, Breed and other members of the Wolverine Foundation toured several of the PMI labs, including one facility where research involving zebrafish and worms is yielding some exciting breakthroughs.

“They were able to observe the techniques and see how the research was unfolding,” Might says. “We found an actionable hit on some fish and worm models of the disease, so they made a decision to start screening drugs, and part of that was based on their visit here.

“We were delighted that they wanted to come and see what’s happening here. It was so motivating for everybody. The level of energy their visit and support injected to the team was incredible, and that energy has really carried us forward.” — Cary Estes

The year in
philanthropy

As demonstrated by the impressive fiscal year 2022 totals below, our donors continued to invest generously in the excellence of our faculty, facilities, and programs. We are deeply grateful for their support.

\$56,913,490

total gifts

\$3,106,550

total planned gifts

\$3,227,749

alumni gifts

\$2,918,516

medical scholarship gifts

15

new endowed chairs and professorships

230

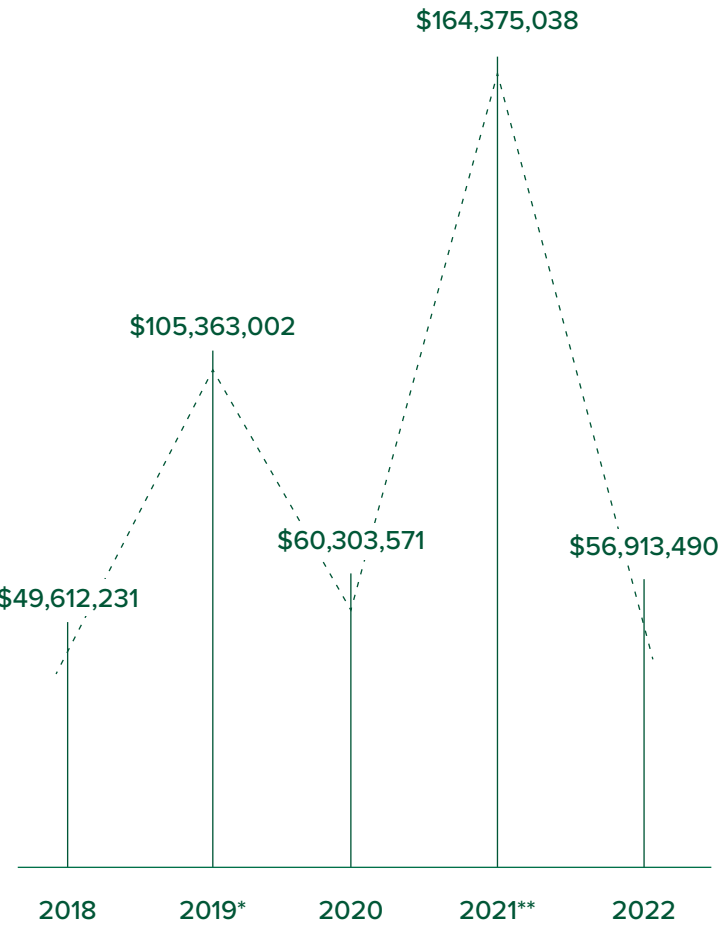
cumulative endowed chairs and professorships

4

new scholarships established

97

cumulative scholarships



* Includes \$30 million naming gift for O’Neal Comprehensive Cancer Center at UAB

** Includes \$100 million naming gift for UAB Marnix E. Heersink School of Medicine



Appointments and honors

Kierstin Kennedy, at left.

Khurram Bashir, M.D., professor in the Department of Neurology; **Aurelio Galli, Ph.D.**, professor in the Department of Surgery; **Bruce Korf, M.D., Ph.D.**, professor in the Department of Genetics, associate dean for Genomic Medicine, and chief genomics officer; and **Jan Novak, Ph.D.**, professor in the Department of Microbiology, were named Distinguished Professors by The University of Alabama System Board of Trustees, a rank that recognizes international accomplishments.

Mary-Ann Bjornsti, Ph.D., professor and chair of the Department of Pharmacology and Toxicology, became president-elect of the largest coalition of biological and biomedical research associations in the United States, the Federation of American Societies for Experimental Biology (FASEB). Her term began July 1, 2022. (Bjornsti stepped down as chair December 31, 2022.)

Cheri Canon, M.D., professor and chair of the Department of Radiology, was named the 2022 Ashbel Smith Distinguished Alumni Award recipient by the University of Texas Medical Branch at Galveston John Sealy School of Medicine Alumni Association Board of Trustees.

Ellen Eaton, M.D., associate professor in the Division of Infectious Diseases, and **Akila Subramaniam, M.D.**, assistant professor in the Division of Maternal-Fetal Medicine, were named to Alabama Media Group’s 2022 Women Who Shape the State.

Mona Fouad, M.D., MPH, senior associate dean for Diversity and Inclusion, director of the Division of Preventive Medicine, and director of the UAB Minority Health & Health Equity Research Center, was awarded the 2022 Vilcek-Gold Award for Humanism in Healthcare. The award is given to outstanding immigrant health care professionals in the United States.

Edie Hapner, Ph.D., professor in the Department of Otolaryngology, co-director of the UAB Voice Center, and director of the Division of Hearing and Speech, was awarded the prestigious American Laryngological Award during Combined Otolaryngology Spring Meetings in May 2022.

Warner Huh, M.D., chair of the UAB Department of Obstetrics and Gynecology, received the American Cancer Society’s 2021 St. George National Award, which is given to outstanding community volunteers in recognition of distinguished service to the American Cancer Society.

Kierstin Kennedy, M.D., chief medical officer at UAB Medicine, joined the board of directors of the Society of Hospital Medicine for a three-year term in April 2022.

James Kirklin, M.D., professor in the Division of Cardiothoracic Surgery and director of the James and John Kirklin Institute for Research in Surgical Outcomes, was named an inaugural recipient of the Pediatric Heart Transplant Society Lifetime Achievement Award.

Bruce Korf, M.D., Ph.D., professor in the Department of Genetics, associate dean for Genomic Medicine, and chief genomics officer, and **Anath Shalev, M.D.**, professor in the Division of Endocrinology, Diabetes, and Metabolism and director of the UAB Comprehensive Diabetes Center, were inducted into the Association of American Physicians, which recognizes outstanding physician-scientists who make the highest contributions to the advancement of medicine.

Tejaswini Kulkarni, M.D., assistant professor in the Division of Pulmonary, Allergy and Critical Care Medicine and director of the UAB Interstitial Lung Disease Program, was one of 10 physicians across the country selected to serve on the American College of Chest Physicians and Three Lakes Foundation steering committee working toward shortening the time to diagnosis for complex lung diseases.

Suzanne Lapi, Ph.D., professor and vice chair of research in the Department of Radiology and director of the UAB Cyclotron Facility, was selected for the Academy for Radiology and Biomedical Imaging Research Council of Distinguished Investigators Class of 2022.

Jeanne Marrazzo, M.D., professor and director of the Division of Infectious Diseases, received the 2022 American Sexually Transmitted Diseases Association Distinguished Career Award.

Vu Nguyen, M.D., chair of the Department of Physical Medicine and Rehabilitation, was named as the North American representative to the executive committee of the International Society of Physical and Rehabilitation Medicine and a member of the Accreditation Council for Graduate Medical Education Physical Medicine and Rehabilitation Review Committee.

Cynthia Owsley, Ph.D., professor and director of the Clinical Research Unit in the Department of Ophthalmology and

Visual Sciences, received the 2022 Roger H. Johnson Macular Degeneration Award, one of the highest honors in the field of macular degeneration research.

Kenneth Saag, M.D., professor in the Division of Clinical Immunology and Rheumatology, served as president of the American College of Rheumatology.

Isabel Scarinci, Ph.D., professor and vice chair of Global and Rural Health for the Department of Obstetrics and Gynecology, received the inaugural Trailblazer Award from TogetHER for Health for her dedication to saving women’s lives both in Alabama and around the world.

Emily Wong, M.D., assistant professor in the Division of Infectious Diseases, received the 2022 Investigator in the Pathogenesis of Infectious Disease award from the Burroughs Wellcome Fund. Wong received the prestigious, \$500,000 award for her research, “Interactions between the human host and M.tb during subclinical tuberculosis.”

Jianyi “Jay” Zhang, M.D., Ph.D., professor and chair of the Department of Biomedical Engineering, was named chair of the Council on Basic Cardiovascular Sciences at the American Heart Association for a two-year term, effective July 1, 2022.

Eighteen faculty members were named winners of the 2022 **Dean’s Excellence Awards** in the areas of teaching, research, service, mentorship, and diversity. See the full list at go.uab.edu/somdeansexcellence2022.

Six faculty members were named the 2022 **James A. Pittman Jr., M.D., Scholars**. The Pittman Scholars program recognizes the achievements of junior faculty and supports the recruitment and retention of highly competitive scientists and physician-scientists. See the full list at go.uab.edu/pittmanscholars2022.

Suzanne Lapi, pictured at left with Birmingham Mayor Randall Woodfin.



Leadership

Meet the people guiding the missions of
our academic medical center



Anupam Agarwal, M.D.
Interim Senior Vice President for Medicine and Interim Dean,
UAB Marnix E. Heersink School of Medicine
Hilda B. Anderson Endowed Chair in Nephrology



Etty (Tika) Benveniste, Ph.D.
Senior Vice Dean for Research;
Associate Vice President for
Medicine and Basic Sciences;
Charlene A. Jones Endowed Chair in
Neuroimmunology



Alex Boles, MBA
Assistant Dean for Finance and
Administration



Megann Bates Cain, MPPM
Assistant Vice President for
Development



Victor Darley-USmar, Ph.D.
Senior Associate Dean for
Research Compliance and
Administration



Paige Dorman, MA
Executive Director of
Communications



Mona Fouad, M.D., MPH
Senior Associate Dean for Diversity
and Inclusion; Associate Vice
President, UAB Office for Diversity,
Equity and Inclusion



Craig Hoesley, M.D.
Senior Associate Dean for
Medical Education and Chair,
Department of Medical
Education



Keith (Tony) Jones, M.D.
Senior Associate Dean for
Clinical Affairs; UAHSF
President; Chief Physician
Executive,
UAB Medicine



Robert Kimberly, M.D.
Senior Associate Dean for
Clinical and Translational
Research and Howard L.
Holley Research Chair in
Rheumatology



Jean Ann Larson, Ph.D.
Senior Associate Dean for
Leadership Development and
Chief Leadership Development Officer



LaKisha Mack, MBA, MHSA
Senior Associate Dean for
Administration and Finance



David Rogers, M.D., MHPE
Chief Wellness Officer,
UAB Medicine
W. Stancil Starnes-ProAssurance Endowed
Chair in Physician Wellness

ASSOCIATE & ASSISTANT DEANS

Irfan Asif, M.D.
Associate Dean, Primary Care and Rural Health

Scott Ballinger, Ph.D.
Associate Dean, Faculty Affairs
Effective Jan. 1, 2023

Raegan Durant, M.D., MPH
Associate Dean, Diversity and Inclusion

Richard Friend, M.D.
Regional Dean, Tuscaloosa Regional Campus

Alice Goepfert, M.D.
Associate Dean, Graduate Medical Education

Christina Grabowski, Ph.D.
Associate Dean, Admissions and Enrollment
Management

Bruce Korf, M.D., Ph.D.
Associate Dean, Genomic Medicine and Chief
Genomics Officer

Louis Lambiasi, M.D.
Regional Dean, Montgomery Regional
Medical Campus

Kevin Leon, M.D.
Associate Dean, Undergraduate Medical Education

Roger Smalligan, M.D.
Regional Dean, Huntsville Regional Medical Campus

Alan Tita, M.D., Ph.D.
Associate Dean, Global and Women's Health
Mary Heersink Endowed Chair in Global Health

Nicholas Van Wagoner, M.D., Ph.D.
Associate Dean, Students

Alex Boles, MBA
Assistant Dean, Finance and Administration

William Brooks, M.D.
Assistant Dean, Preclinical Education

Latesha Elopore, M.D., MSPH
Assistant Dean, Medical Education Diversity and
Inclusion

Cristin Gavin, Ph.D.
Assistant Dean, Undergraduate Biomedical Education

William Geisler, M.D., MPH
Assistant Dean, Physician Scientist Development

Alecia Gross, Ph.D.
Assistant Dean, Faculty Affairs

Caroline Harada, M.D.
Assistant Dean, Community Engaged Scholarship

Brenessa Lindeman, M.D., FACS
Assistant Dean, Graduate Medical Education

Todd Peterson, M.D.
Assistant Dean, Students

Rubin Pillay, M.D., Ph.D.
Assistant Dean, Global Health

Marjorie Lee White, M.D.
Assistant Dean, Clinical Simulation

James Willig, M.D., MSPH
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Stepped down as chair December 31, 2022

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LEADERSHIP

UAB HEALTH SYSTEM

UAB Health System is a statewide health system coordinating the clinical enterprises of the University of Alabama at Birmingham throughout the state of Alabama. It includes UAB Hospital, the eighth largest hospital in the nation, as well as UAB Hospital-Highlands and UAB Callahan Eye Hospital. UAB Health System has affiliations with Medical West in Bessemer, Baptist Health in Montgomery, and Cooper Green Mercy Health Services in Birmingham, and is a member of the UAB Health System/Ascension St. Vincent's Alliance. UAB Health System treats more than 1.6 million patients every year.

UAB Medicine includes the faculty and clinicians comprising the Heersink School of Medicine, the University of Alabama Health Services Foundation (UAHSF), and the UAB Health System facilities located in the Birmingham metropolitan area. The UAHSF staffs multiple clinics that offer medical services in more than 35 specialties. Together, these three organizations collaborate closely through an executive management structure called the Joint Operating Leadership Council.

UAB Health System has management relationships at health care facilities across the state, including Russell Medical in Alexander City, J. Paul Jones Hospital in Camden, Whitfield Regional Hospital in Demopolis, Northwest Regional Health in Winfield, and Regional Medical Center of Central Alabama hospitals. UAB Health System also has strategic collaborations with Infirmiry Health in Mobile and Northeast Regional Hospital in Anniston. Learn more at www.uabmedicine.org.



Dawn Bulgarella, MSHA, CPA
President and Interim Chief Executive Officer,
UAB Health System
Chief Financial Officer,
UAB/Ascension St. Vincent's Alliance



Reid Jones
Chief Executive Officer,
UAB Medicine



Keith (Tony) Jones, M.D.
UAHSF President
Chief Physician Executive,
UAB Medicine



Anthony Patterson
Chief Executive Officer,
UAB Hospital

**Effective January 1, 2023, Patterson joined the UAB School of Health Professions as the inaugural associate dean for Clinical Affairs and Strategy.*

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**UAB HEERSINK SCHOOL OF
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