

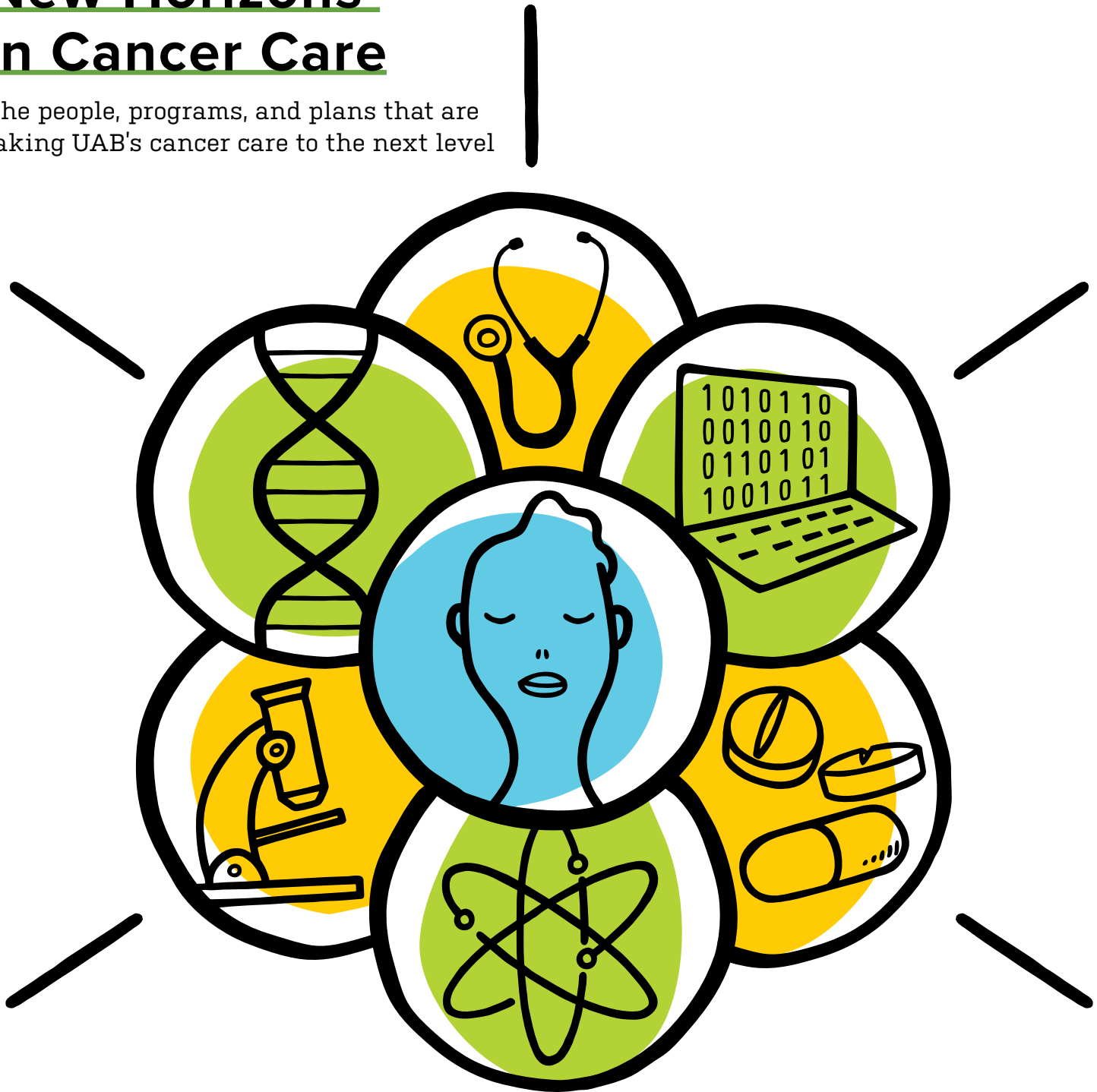
UAB MEDICINE

A MAGAZINE FOR ALUMNI AND FRIENDS OF THE SCHOOL OF MEDICINE

VOLUME 47 • NUMBER 1 • SUMMER 2020

New Horizons in Cancer Care

The people, programs, and plans that are taking UAB's cancer care to the next level



Also in this issue:
UAB's vital role in Alabama's
COVID-19 pandemic response

LETTER FROM THE DEAN

To say we are living in tumultuous times is an understatement. The events of the past few months have upended almost every aspect of our lives. From the spread of the coronavirus pandemic to the ongoing presidential campaigns to the demonstrations sparked by the deaths of George Floyd, Ahmaud Arbery, Breonna Taylor, and Rayshad Brooks, history may well define the period we are now living through as a turning point for our country.

Over the past few months, I have been inspired to contribute my thoughts on aspects of our current moment through interviews and opinion pieces in a variety of media outlets. In April, I was interviewed by [MSNBC's The Beat with Ari Melber](#) about how the pandemic is disproportionately affecting minority communities because of longstanding health disparities in our country. I was also honored to develop an [op-ed for USA Today](#) in collaboration with a group of medical school deans and health care leaders who share my grave concern about this phenomenon. Building on this, I wrote an [op-ed for the Association of American Medical Colleges \(AAMC\)](#) about the importance of teaching medical students about health disparities and social determinants of health, in part so our country can be better withstand the next pandemic. The Harvard Center for Primary Care requested a [guest blog post](#) on the same topic, which I was pleased to provide.

In addition to these recent contributions to academic and public discourse, I hope you'll enjoy reading this issue, which explores our school's and UAB's vital role in helping our city and state confront the pandemic. The issue also spotlights non-coronavirus stories, including our cover story, which highlights several developments that are accelerating our goal of becoming the top cancer care provider and research hub for Alabama and the region. You'll also read about how UAB Sports Medicine is partnering with Birmingham's Legion FC to keep these elite soccer players in top form; a high-profile visit from National Institutes of Health Director Francis Collins in March; what our Medical Alumni Association leaders see as top priorities for the organization; and more.

I want to wish all our alumni health and peace amid the disruption and unrest we are experiencing as a country. I hope we will come through this historic moment a stronger and more just nation. And thank you to our alumni for all you do to serve your own communities at a time when medical leadership is more critical than ever.

Sincerely,



Selwyn M. Vickers, M.D., FACS
Senior Vice President for Medicine
Dean, UAB School of Medicine
James C. Lee Jr. Endowed Chair
University of Alabama at Birmingham
Chair, UA Health Services Foundation Board



THIS ISSUE



FEATURES

8 **Leading the Charge**
UAB plays vital role in Alabama's COVID-19 response

14 **New Horizons in Cancer Care**
The people, programs, and plans that are taking UAB's cancer care to the next level

18 **Goal!**
UAB Sports Medicine teams up with Legion FC soccer

22 **Providing Hope**
A counselor reflects on the lessons she's learned working in palliative care

DEPARTMENTS

- 3 IN BRIEF**
Research and clinical highlights from across UAB Medicine
- 24 RESEARCH**
Looking to the future of research with National Institutes of Health Director Francis Collins
- 26 MEDICAL EDUCATION**
Medical student Zach Sollie plays pivotal role in diagnosing rare neurological disease
- 28 STUDENT PROFILES**
Get to know some of the 2020 Best Medicine Show performers
- 30 ALUMNI PROFILES**
Medical Alumni Association leaders on current priorities and future goals
- 32 GIVING**
Recent gifts foster diversity and inclusion in medicine, patient care and research in kidney disease, excellence in microbiology, and more
- 36 ACROSS CAMPUS**
Events, announcements, and achievements in the academic life of the School of Medicine
- 40 GET TO KNOW**
Meet surgery resident and record-holding powerlifter Samantha Baker

Cover illustration by Chris Davis

Contributing Writers

Cary Estes, Rosalind Fournier, Holly Gainer, Tyler Greer, Jeff Hansen, Haley Herfurth, Brian Hudgins, Savannah Koplun, Adam Pope, Bon Shepard, Matt Windsor

Contributing Photographers

Amanda Chambers, Nik Layman, Andrea Mabry, Dustin Massey, Steve Wood

Note: Most photography was shot prior to the coronavirus pandemic and the widespread adoption of social distancing and mask-wearing protocols.

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SCHOOL LEADERSHIP

Senior Vice President for Medicine and Dean
Selwyn Vickers, M.D., FACS

Executive Vice Dean
Anupam Agarwal, M.D.

DEVELOPMENT AND COMMUNITY RELATIONS

Executive Director of Development, School of Medicine
Megann Bates Cain

Executive Director of Development for Strategic Planning,
School of Medicine
Jessica Towns

Senior Director of Development and Strategic Initiatives,
School of Medicine
Erica Hollins

Comprehensive Diabetes Center
Christian Smith

Department of Anesthesiology & Perioperative Medicine
Jessica Towns

Department of Dermatology
Allison Tillotson

Department of Medicine
Megann Bates Cain; Christian Smith

Department of Neurology
Katy Fuglaar

Department of Neurosurgery
Katy Fuglaar

Department of Obstetrics and Gynecology
Erica L. Hollins

Department of Ophthalmology and Visual Sciences;
Callahan Eye Hospital
Morgan Quarles

Department of Orthopaedic Surgery
Jessica Towns

Department of Otolaryngology
Ivy Watson

Department of Pathology
Ivy Watson

Department of Pediatrics
Andrea Martin

Department of Physical Medicine & Rehabilitation;
Spain Rehab
Ivy Watson

Department of Radiology
Allison Tillotson

Department of Surgery
Jessica Towns

Department of Urology
Lisa Roth

Friends and Family Program
Ivy Watson

Grateful Patient Program
Amy Willis

Joint Health Sciences
Ivy Watson

Medical Student Scholarships; Primary Care
Jessica Brooks Lane

O'Neal Comprehensive Cancer Center at UAB
Lisa Roth

Patient and Alumni Giving
Allison Tillotson

Regional Giving
Sarah Weinacker

Contact Information
(205) 975-5659 • somdev@uab.edu

MEDICAL ALUMNI ASSOCIATION

President
John Wheat, M.D. '76

President-Elect
V. Michael Bivins, M.D. '96

Executive Director
Meredith Burns

Assistant Director
Beth Eddings

Business Administrator
Michelle Giddens

Contact Information
(205) 934-4463 • office@alabamamedicalalumni.org

UAB MEDICINE STAFF

Executive Director of Communications
Paige Dorman

Managing Editor
Jane Longshore

Art Director
Kristin Farmer

Contact Information
(205) 934-0256 • somdev@uab.edu

In Brief

Research and clinical highlights from across UAB Medicine

Allies in Care

The UAB Health System and Ascension St. Vincent's have entered into an alliance that will increase access to high-quality, innovative medical care through multiple outlets and health programs. Pending appropriate approvals, the strategic alliance will enable the two entities, which have a long history of collaboration, to come together to further enhance patient care and address Alabama's most challenging health threats. The alliance will use innovative strategies to address health disparities, mental and behavioral health, and diabetes, with an emphasis on expanded access for poor, vulnerable, and rural populations.

Leaders of both organizations say by bringing the two together, the alliance enhances their longstanding relationship and affirms each organization's ability to help patients receive the right care in the right setting at the right time, including those who need highly specialized care. Currently, Ascension St. Vincent's facilities receive admissions from UAB's Gardendale Emergency Department and UAB faculty perform surgery at Ascension St. Vincent's One Nineteen.

"As health care continues to evolve, it's important for health systems to work with each other to provide innovative, person-centered care," says UAB Health System CEO Will Ferniany. "It has always been our shared commitment with Ascension St. Vincent's to remain on the forefront of this vital health care transformation. Through this combination of each organization's locations, specialties, and expertise, the health systems will strive to better accommodate patients."



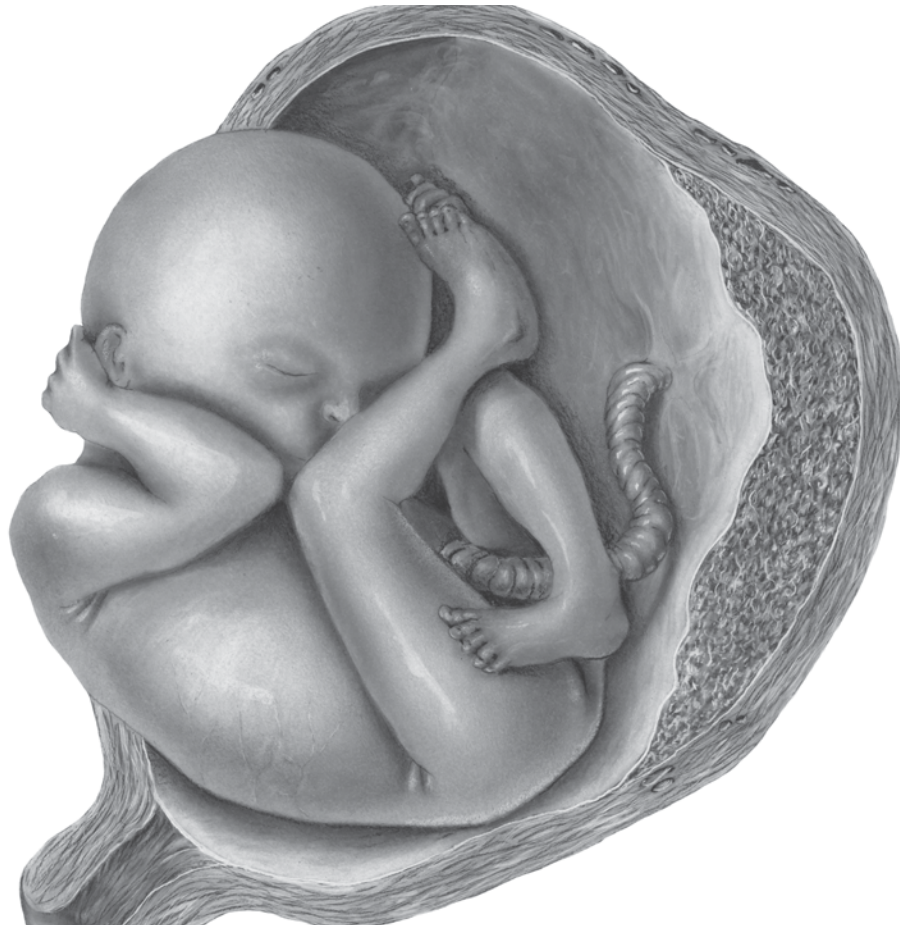
The Missing Piece

Congenetic mouse strains—which have been used for decades in immunology research and were thought to be genetically identical outside of a marker locus—have been found to contain previously unrecognized genetic variation, UAB researchers reported in a study published in the journal *Immunity*. The team, led by Amy Weinmann, Ph.D., professor in the Department of Microbiology, discovered this genetic variation when performing experiments to define the effects of microbial metabolites on T cells. Conflicting data from these experiments prompted questions that led to the discovery.

"If you think of research as a puzzle, we reached a point where we knew we were missing a key puzzle piece, and we couldn't go any further without first finding the missing piece," says Weinmann.

The researchers adapted existing informatics tools and devised a new strategy to identify regions of the genome that diverge from the most commonly used mouse genetic background. Their new approaches will help researchers identify and define genetic variations among strains of mice, in chromosomal areas of interest.





Fetal Microbiome Signature

A team led by UAB researcher Charitharth Vivek Lal, M.D., found that a human fetal microbiome DNA signature is present in lungs as early as the first trimester. This first-time finding deepens the mystery of how microbial products reach those organs before birth and what role they play in lung and immune system development.

"We speculate that maternal-fetal microbial DNA transfer—and perhaps of other microbial products and whole live or dead bacteria—is a realistic possibility," says Lal, an

associate professor in UAB Pediatrics' Division of Neonatology. "This may serve to 'prime' the developing innate immune system of the fetus and help establish a normal host-commensal relationship."

Researchers, including Lal and colleagues, have previously seen that the lungs of infants, sampled immediately after birth, are colonized with bacteria. Furthermore, similar microbiome profiles are found after either cesarean or vaginal delivery, which suggested that microbes somehow are able to reach

the lungs before birth.

In the new study, 31 samples of lung, placenta, and intestine tissue from fetuses between 11 and 20 weeks of gestation were collected. Duplicate, independent tests were conducted at Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore.

"Overall, at both lab sites, analysis of the bacterial taxa distribution and diversity showed some overlap in microbiome signatures of fetal lungs and matched placentas," Lal says.



DISTINCTIONS

Healthgrades named UAB Hospital one of America's Best Hospitals for 2020. The ranking is based on analysis of more than 45 million patient records across nearly 4,500 hospitals over three years. UAB Hospital is the only Alabama health care facility on the list, which honors the top 5 percent of hospitals in the U.S. for overall clinical excellence.

Lives on the Line



Each year, an estimated 350,000 people experience sudden cardiac arrest in the U.S. in out-of-hospital environments. Only about one in 10 victims survives this traumatic event; successful resuscitation requires immediate response to improve odds of survival.

Telecommunicators, such as 911 operators, often have the first opportunity to identify a patient in cardiac arrest and provide initial care by delivering CPR instructions while dispatching emergency medical services.

A high-quality telecommunicator CPR (T-CPR) program can save more lives from out-of-hospital cardiac arrest, according to a new advisory published in *Circulation* by the American Heart Association. According to the advisory, an effective T-CPR program depends on several important operational commitments, including:

- Provide a high-quality program that includes measurement and performance goals
- Provide initial and ongoing education in T-CPR for all telecommunicators
- Conduct effective and continuous quality improvement
- Connect to an emergency medical services agency
- Designate a medical director
- Recognize outstanding performance

“A T-CPR program offers the safest, most cost-efficient, and most effective approach to substantially increase community lay-rescuer CPR,” says lead author Michael Kurz, M.D., associate professor in the UAB Department of Emergency Medicine. “Thousands of additional lives can be saved each year if we can achieve this goal.”

QUOTE/UNQUOTE

“Public beaches and community pools can go from quiet to bustling before you know it. If you find that you are unable to wear your mask, because you are eating or drinking, for example, and you are also unable to maintain your distance from others, because of overcrowding—it's time to go.”



KIERSTIN KENNEDY, M.D., chief of Hospital Medicine at UAB Hospital, quoted in Healthline, “As Businesses Reopen, Here Are Some of the Highest Risk Places for COVID-19,” June 10, 2020.

FASTER TISSUE ENGINEERING

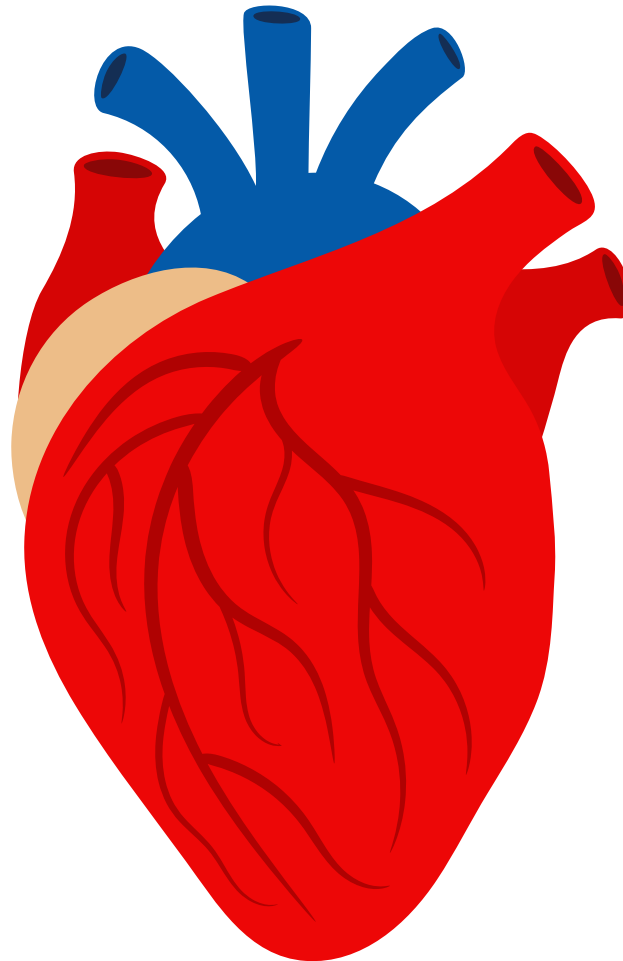
The dream of tissue engineering is computer-controlled manufacturing of complex and functional human tissue for potential organ regeneration or replacement. UAB biomedical researchers have found a way to speed tissue creation using a novel bioprinter built for \$2,000, they report in the journal *Micromachines*. Building blocks for the tissue are pre-grown spheroids of human induced-pluripotent stem cells that contain 200,000 cells per spheroid.

The first commercial bioprinter from Japan builds tissue one spheroid at a time, placing the spheroids on metal pins that can be removed after the growing cells expand and fuse into tissue. The UAB approach could increase the efficiency of that scaffold-free bioprinting by as much as a hundred-fold.

The UAB proof-of-concept bioprinter picks up multiple spheroids at the same time and places them simultaneously on a matrix of pins. The prototype used a 4-by-4 matrix of 16 pins, so 16 spheroids could be placed at once, with a 45-second cycle speed.

A Telling Link

People with chronic kidney disease have a higher risk for heart disease and heart-disease death. Now, for the first time in humans, research published in the journal *Circulation* with Navkaranbir Bajaj, M.D., MPH, assistant professor in the UAB Division of Cardiovascular Disease, as first author, has identified a pathological change that appears to link kidney disease to progressive heart disease. This offers a potential treatment target for the 14% of the U.S. adult population who suffer from chronic kidney disease.



The pathological change identified is coronary microvascular dysfunction (CMD), say Bajaj and research colleagues at Harvard Medical School. CMD is decreased blood flow in the small blood vessels inside the heart

muscle that provide oxygen and fuel to feed the pumping heart. The researchers found that CMD was a significant predictor of abnormal mechanics of the left ventricle and a significant predictor of clinical risk of adverse

cardiovascular outcomes.

A statistical model called mediation analysis examined the relationship between impaired kidney function and heart disease. It showed that CMD accounted for 19-24% of left ventricle diastolic dysfunction, 19-42% of left ventricle systolic dysfunction, and 32% of major adverse cardiovascular events.

"To the best of our knowledge, our study is the first and largest to comprehensively explore these associations and to suggest a possible pathway to the development of uremic cardiomyopathy in individuals without overt ischemic heart disease," the study says.

ADVANCING CARE

UAB has established a new Division of Breast and Endocrine Surgery to provide comprehensive care for patients with benign and malignant tumors of the breast and thyroid, parathyroid, and adrenal glands. Helen Krontiras, M.D., the Kirby I. Bland, M.D., Endowed Professor of Surgery, directs the division.

3,000

gallons of disinfectant used per month by UAB Medicine's Environmental Services staff to keep inpatient facilities and hospital common areas clean and safe during the pandemic



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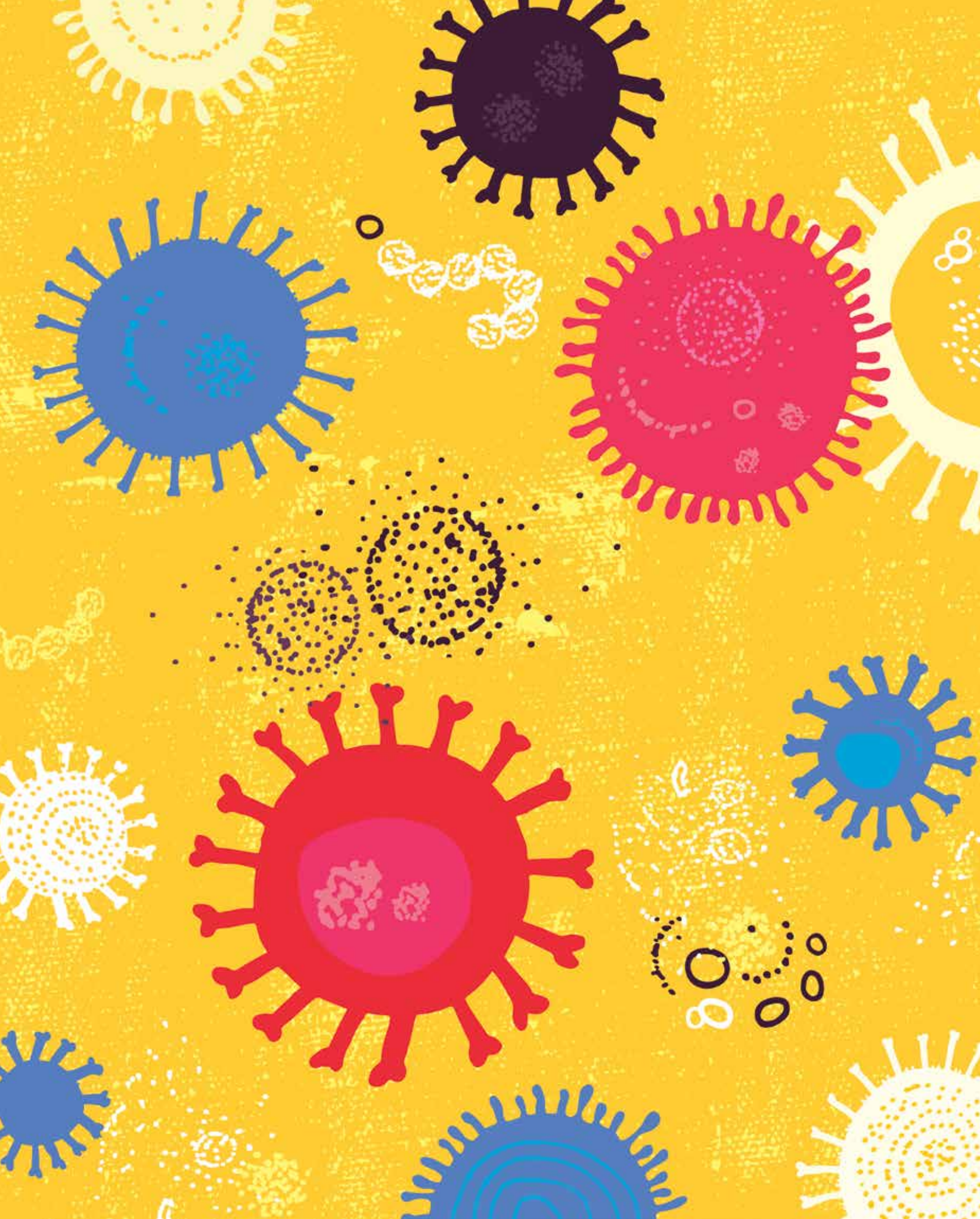


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Leading the Charge

UAB's vital role in Alabama's
COVID-19 pandemic response

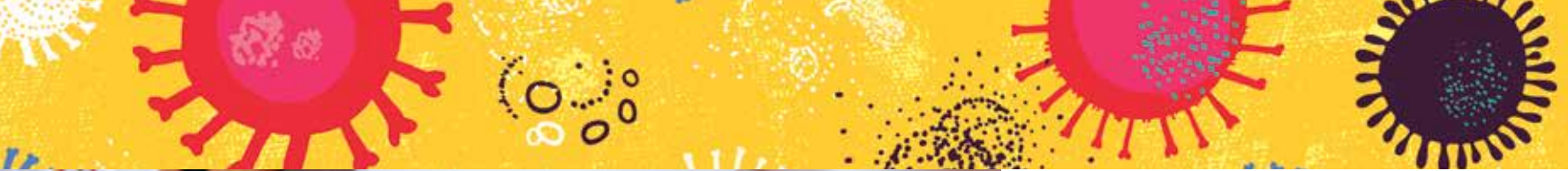
By Bob Shepard

C **COVID-19 has affected virtually every facet of** life in Alabama, and since the crisis began, the University of Alabama at Birmingham (UAB) has been leveraging its expertise to fill a critical leadership role in response to the pandemic.

“The COVID-19 pandemic has showcased the vital importance of UAB to Alabama and the world,” says UAB President Ray Watts, M.D. “We continue to leverage research and innovation, community service, patient care, and education to make a big difference.”

As the country began to take notice of the novel coronavirus, UAB's world-renowned infectious diseases experts provided accurate and timely information across Alabama and beyond, and they have continued to collaborate with local, state, and federal elected leaders, deliver critical information to our community, and inform media audiences worldwide.

As a world-renowned research-intensive academic medical center, the state's eyes turned to UAB Medicine for guidance on how to protect against the virus, medically prepare for a pandemic, and care for patients once it arrived.



Left to right: A health care worker is wearing Personal Protective Equipment (PPE) while working in the Hospital during the COVID-19 (Novel Coronavirus) pandemic, March 2020.; a medical professional stands beside an SUV at the drive-through Downtown COVID-19 Testing Site sponsored by UAB Medicine and the Jefferson County Department of Health on March, 23, 2020.

PREPARING FOR THE WORST

“When the COVID-19 crisis started, UAB Medicine took the position that we were going to do everything we could to help Alabama regardless of the cost,” says Will Ferniany, Ph.D., CEO of the UAB Health System. “We planned and prepared and shared what we knew to help others across the state plan and prepare as well.”

These preparations included:

- UAB experts prepared treatment guidelines and best practices and shared them with hospitals across the state.
- UAB supply chain leaders provided support and advice to the governor’s office, the Alabama Hospital Association, and Jefferson County’s supply chain efforts to secure personal protective equipment (PPE), not just for UAB, but for all health care providers across the state.
- UAB pulmonologists helped the state evaluate proposals to purchase additional ventilators and made recommendations on the most appropriate options.
- As the pandemic grew, UAB worked with state and local health departments, emergency management agencies, and Jefferson County on a plan to transform the Sheraton Birmingham Hotel’s 377 rooms into treatment rooms for patients in the event of a surge.
- Plans were also coordinated with the U.S. Army Corps of Engineers on creating two 36-bed acute care units, if needed, in the Birmingham Jefferson Civic Center.
- UAB physicians served on advisory panels and task forces to collaborate with and provide critical medical insights with local and state officials.
- The UAB Health System and the Division of Geriatrics created a five-point plan to help nursing homes cope with the pandemic. Town hall meetings with the Alabama Nursing

Home Association, Alabama Hospital Association, and state and local health departments resulted in a care continuum to develop strategies to fight the spread of infection in nursing facilities and provide a best practices care plan for testing and treating infected patients.

CARING FOR THOSE INFECTED

UAB leveraged its large team of critical care physicians and nurses, as well as advanced knowledge and technologies, to care for complex COVID-19 cases, supporting higher recovery rates and saving lives. In addition to patient care, UAB led efforts to care for frontline health care heroes at UAB and beyond.

UAB Medicine made rooms available at nearby hotels for health care providers who did not want to return home and risk infecting their families. The university even offered a residence hall for self-isolating UAB staff and Birmingham-area first responders who had tested positive for COVID-19 or who had not tested positive but were worried about going home to their families. With the university’s full backing, the belongings of student residents who had returned home were packed and stored. The facility was thoroughly sanitized, and rooms were offered at no cost to frontline health care heroes.

UAB Health System member Baptist Health did the same, working with Auburn University at Montgomery to offer free housing to team members who had been exposed to COVID-19 or had family members at home with compromised immune systems.

Medical West Hospital, also a member of the UAB Health System, ramped up telemedicine in all of its primary care clinics to provide needed continuing care and testing ability. The hospital is also working with area nursing homes to contain the spread of the virus in those facilities through aggressive testing and best practices of evaluation and mitigation.



ADDRESSING DISPARITIES

Recognition of the disproportionate burden of disease on minority populations was highlighted in an editorial by Selwyn Vickers, M.D., FACS, senior vice president for Medicine and dean of the UAB School of Medicine, along with 14 medical school deans and health leaders. The editorial, published in USA Today online and in print under the headline “Coronavirus magnifies racial inequities, with deadly consequences,” drew attention to the higher rates of infection and mortality in persons of color, and called for refining governmental and health care responses to pandemics to provide greater access to resources for the underprivileged and underserved.

A second thought-provoking editorial penned by Vickers stated the case for increased medical education in social determinants of health. The editorial, published by the American Association of Medical Colleges on their website, calls for changes in the medical school curriculum to better educate the next generation of physicians on the effects of health disparities on population health. “The coronavirus pandemic has illustrated, perhaps more vividly and starkly than any event in our lifetimes, the critical importance of addressing these health disparities,” Vickers writes. “Certainly no one can reasonably expect physicians to solve societal problems like poverty and racism. However, continuing to equip medical students with an understanding of cultural competence, help them recognize and address racial bias in medicine, and teach them about the costs of health disparities—both as they affect patient outcomes and the health care system at large—is vital to improving care and reducing costs in the long run.”

In a partnership between JCDH, Birmingham Strong, federally funded health centers in the area, and UAB’s NIH-funded Minority Health and Health Disparities Research Center, UAB launched additional testing sites in disadvantaged neighborhoods

across the Greater Birmingham area. A call center for appointments was set up and neighborhoods identified. The clinics feature drive-in and walk-up testing, and they test between 50 and 100 individuals per day at each site.

“As we reopen across the state, we know that it will be vitally important to continue community testing,” says Jordan DeMoss, vice president for Clinical Operations at UAB Hospital. “We understand that not everyone is capable or willing to come to our downtown testing site. We feel it is important that we reach out, especially to our underserved communities, for testing, for education, and for awareness as we build trust in the health care system.”

The health system also supports underserved residents of Jefferson County as it moves forward with plans to operate Cooper Green Mercy Health Services as part of a University Authority. The Authority will provide better access to UAB’s high-quality care for Cooper Green patients.

TESTING INNOVATIVE THERAPIES

UAB is also on the front lines of drug discovery, spearheading the development of possible therapeutics against COVID-19. One of the most promising treatments is remdesivir, developed under the guidance of the UAB-led Antiviral Drug Discovery and Development Center, which the NIH’s Anthony Fauci, M.D., has called the standard of care for hospitalized patients with moderate to severe illness. UAB is the only hospital in Alabama able to offer these treatments for our citizens through multiple clinical trials:

- Remdesivir
- Nitric oxide
- Convalescent plasma
- Selinexor
- Tocilizumab
- Canakinumab on cytokine release syndrome



SUPPORTING TESTING

UAB Hospital administrators and leaders in pathology have been able to secure hard-to-get testing equipment, materials, and PPE to expand testing in the region, as well as expand testing into previously underserved areas. UAB medical students volunteered at community testing sites and manned phone lines to deliver results.

Due to UAB's efforts in molecular testing led by Sixto Leal, M.D., UAB was among the first academic medical centers in the country to offer in-house testing by launching a laboratory-developed test in March. Leal and his team are able to test between 300 and 500 samples daily with COVID-19 RNA testing, confirming the presence of the virus in patients, with a turnaround time of less than 24 hours. This includes all inpatient admissions and health care workers, as well as all patients undergoing surgical procedures at UAB Hospital, and labor and delivery patients. A second COVID-19 RNA testing platform with less than two hours' turnaround time is now operational as well.

To support the Jefferson County Department of Health, UAB developed a testing call center and drive-in site on UAB property. That site has now tested more than 5,000 community members. Hospital laboratories quickly geared up to increase testing capacity, now processing 600 tests per day.

Medical West Hospital worked closely with mayors in west and southwest Jefferson County, and tested more than 600 patients with the help of Cahaba Medical Care, a local community-based health organization with locations across rural and urban Alabama.

Baptist Health quickly opened two Coronavirus Care Clinics in mid-March, within a week of one another, with phone screening/testing and a drive-up appointment model. As of early May, the clinics have served nearly 20,000 patients via phone screenings and more than 2,500 patients via drive-up screenings. These

clinics helped identify COVID-19-positive patients in a drive-up clinic setting allowing for a safe and seamless referral to appropriate medical care.

REOPENING THE STATE

On the eve of Alabama's updated stay-at-home measures that allowed greater access to retail, UAB partnered with the City of Birmingham to distribute posters through an extensive grassroots effort for retailers and individuals to encourage safe shopping to allow businesses to remain open.

In addition to awareness, tracking the virus is a critical element of the reopening plan. A group of UAB experts created www.helpbeatcovid19.org, a symptom tracker to help determine hotspots across the state where the spread of the virus could be prevalent. More than 80,000 people are using this tool to track their daily symptoms, providing up-to-date information that tracks the progression of symptoms in communities in real time. The resulting interactive map shows hot spots that indicate a rise in symptoms.

UAB experts also serve on a number of panels looking at ways to safely and effectively reopen the state:

- Vickers serves on the executive committee of the governor's task force.
- Jeanne Marrazzo, M.D., director of the UAB Division of Infectious Diseases, serves on the state coronavirus task force.
- Other medical professionals are serving as advisers to elected officials at the local, regional, and state levels on the progress of the virus, and of the efficacy of efforts to flatten the curve and reduce the incidence of infection.
- The UAB Health System has worked with hospitals in the region on guidelines for opening elective surgery and returning to normal patient volumes.



Left to right: Kevin Harrod, Ph.D., professor of Anesthesiology, conducts coronavirus disease research in his laboratory, May 2020; Albert Pierce II, M.D., professor of Anesthesiology, is photographed while being fitted with a respirator that was adapted to include a medical grade filter at the UAB Hospital COVID-19 Command Center, April 14, 2020; Jeanne Marrazzo, M.D., MPH, director of the Division of Infectious Diseases, speaks at a UAB Medicine COVID-19 News Conference in April 2020.

REVVING UP RESEARCH

In addition to ongoing drug development and clinical trials work, UAB has ramped up new research in the fight against COVID-19. In March, UAB launched the Urgent COVID-19 Research Fund, and in three weeks raised \$1.1 million from Birmingham and state business leaders.

The money was dedicated to clinical and basic research projects proposed by UAB faculty in the School of Medicine, in conjunction with the Hugh Kaul Precision Medicine Institute. A request for applications for basic science proposals was issued in mid-March to faculty of the school. Fifty-two proposals were submitted. In late April, 14 projects were selected for funding, including:

- Vaccine development
- Repurposing FDA-approved medications for use against COVID-19
- Discovery of novel therapeutic targets
- Disease tracking systems
- Improvements in testing platforms
- Creation of reagents for use in antibody immunity studies
- Bio-repositories
- Clinical registry of COVID-19
- Creation of animal models of COVID-19
- Understanding the cytokine release syndrome implicated in patients with severe disease

LOCAL AND GLOBAL OUTREACH

UAB began regular media briefings in February to better inform the public about the novel coronavirus threat, prior to the first identified cases in Alabama. Since then:

- UAB faculty have been regular fixtures on local and national television and quoted in major media outlets around the world.
- UAB has presented regular media briefings to state media outlets, in conjunction with the City of Birmingham, Jefferson County Department of Health, and Emergency Management Agency.
- UAB's uab.edu/coronavirus website offers information, videos,

images, infographics, and more that have been shared widely in social and traditional media, reaching hundreds of thousands of people online.

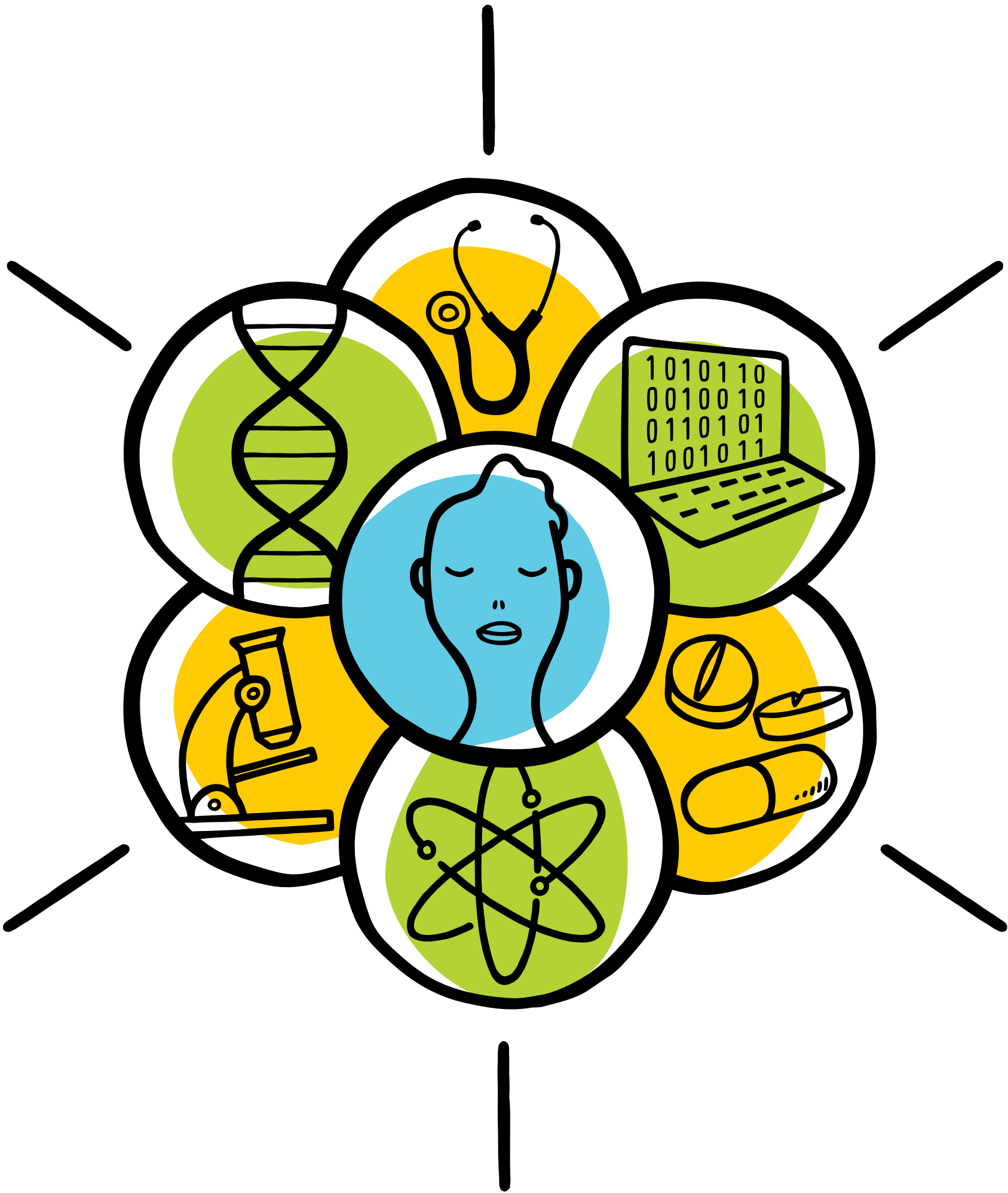
- The helpbeatcovid19.org website provides a place for the public to donate money, material, or just show their support for frontline health care workers, first responders, or those in need.

EDUCATIONAL LEADERSHIP

UAB and the University of Alabama System have taken a leadership role in helping institutions of higher education plan toward a safe return to campus when in-person classes and activities resume. The UA System established a task force made up of representatives of all three campuses and leveraging UAB's extensive medical expertise to develop plans for reopening universities—guidance that is being shared with other institutions across the state. The task force is co-chaired by Vickers.

“We are extremely fortunate that UAB, home to one of the world's foremost academic medical centers, is part of our system,” said UA System Chancellor Finis St. John. “With knowledge and guidance from the scientists, doctors, researchers, and numerous higher-education experts on our campuses, we are developing comprehensive plans to make sure our three campuses are the safest in America when our students return. Our task force will consider strategies of all kinds: testing measures, enhanced cleaning, classroom procedures, housing policies, security and wellness programs, and more.”

Watts says UAB will continue to work aggressively to support Alabama's fight against COVID-19 and the state's recovery. “We have worked very hard to respond to the pandemic from every aspect of our organization,” Watts says. “I'm proud of the people of UAB: frontline health care workers, researchers, support staff, faculty, and students as we adapt to a new reality. We are also hard at work planning for when this is over, so that UAB will be an even stronger and better organization to serve the people of Alabama.”

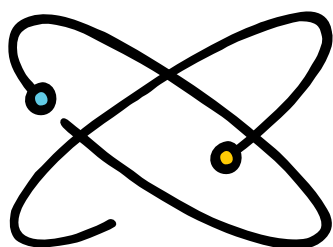
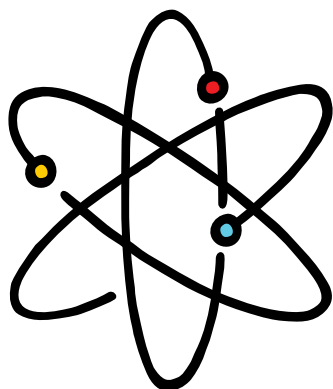


NEW HORIZONS IN CANCER CARE

The people, programs, and plans that are taking UAB's cancer care to the next level

By Cary Estes

“There are some places where people do things a certain way simply because they've always done them that way. But here at UAB, when you pose to people a different way to do things that may enable them to achieve greater success, they are very open to new ideas.”



When Barry Sleckman, M.D., Ph.D., accepted the role as director of the O'Neal Comprehensive Cancer Center at the University of Alabama at Birmingham, he was primarily drawn to the research opportunities and growth potential he saw for the facility. But after officially taking over on January 6, Sleckman says he quickly discovered the biggest benefit of being at UAB.

“The most positive thing about being at UAB is the people,” Sleckman says. “The people in general are all motivated to do great things and meet challenges in a very selfless way. That's energizing.”

Sleckman completed his M.D. and Ph.D. in immunology at Harvard Medical School, his residency in internal medicine and fellowship in infectious diseases at Brigham and Women's Hospital in Boston, and his postdoctoral training in molecular immunology at Boston Children's Hospital. Before coming to UAB, he held positions as professor of pathology and laboratory medicine, and professor of microbiology and immunology at Weill Cornell Medicine in New York City.

Sleckman compares working at UAB to the time he spent

at the Washington University School of Medicine in St. Louis, where he started his own laboratory as an assistant professor in the Department of Pathology and Immunology and spent 10 years as associate director of the Siteman Cancer Center.

“The current potential of the cancer mission at this institution is very similar to what it was in St. Louis, and they have met a lot of that potential,” Sleckman says. “A lot of our goals for the next 10 years are obtainable, because I've been at another institution that has achieved these same things.”

Sleckman's goals for UAB are lofty. Namely, he wants the O'Neal Comprehensive Cancer Center to become the premier cancer care facility in the state of Alabama and one of the best in the Southeast. In doing so, he would like to double the number of new patients seen at the center.

“My overall, 10-year goal is for O'Neal to be the brand name for the very best cancer care in the state of Alabama,” Sleckman says. “Given the population of the Birmingham metro region and the instances of cancer, I'd like for us to be seeing somewhere in the

neighborhood of 10,000 new patients each year. That's an important goal, because we want people in this region to realize that if they get cancer, this is where they should come."

UAB has already taken major strides toward achieving that goal. Here are a few of the most notable developments.

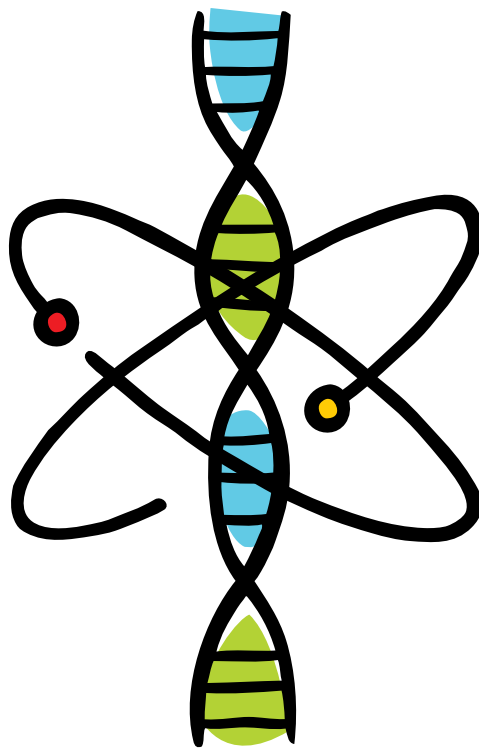
CREATING A CANCER SERVICE LINE

Receiving information about cancer treatment has long been a cumbersome, multi-step procedure. On Monday a patient sees the surgeon. On Wednesday it's a visit with the oncologist. Then on Friday an appointment with the radiation oncologist.

"In addition to the inconvenience, even though each one of them would basically be telling you the same thing, on Saturday you might be sitting at home very confused about the messages you got from three different doctors," Sleckman says.

UAB has started streamlining that process with the introduction of the cancer service line, which is designed to improve the access and coordination of clinical cancer care. This begins with the creation of a single phone number for patients, providers, and referring physicians to call, where they can speak with a live person instead of an automated system, whose responsibility is to route them to the correct specialists.

"The cancer service line is the glue that holds together cancer care across the entire system," says Jordan DeMoss, vice president of Clinical Operations for UAB Medicine. "Every cancer patient needs to have the same approach to accessing our system, regardless of what type



of cancer they have. It's care without walls."

This enables the focus to be specifically on the cancer treatment itself, and not on the various departments and divisions that provide clinical care. Through the cancer service line, obtaining medical records, setting up appointments and testing, and communicating information to the patient is done in a more convenient and timely manner.

"Our previous infrastructure didn't really allow us to build out this kind of care in a supported, well-governed way," says Warner Huh, M.D., senior medical officer for the cancer service line. "There was no clear path to make sure we could do this in an expeditious manner. That's what triggered this. Our research endeavors here are highly dependent on the clinical enterprise. So it made sense to integrate the two under the umbrella of the O'Neal Comprehensive Cancer Center."

In addition to making the entire process easier and less stressful for patients, Huh says

it also is extremely beneficial for physicians. "It's providing the infrastructure for that full breadth of interdisciplinary care, so the physicians don't have to do the legwork to make sure our patients get coordinated across the continuum," Huh says. "We want to have the systems in place to support this, so the providers can focus on taking care of the patients and not on coordinating care with other professionals."

RECRUITING TOP TALENT

One way to enhance cancer care at UAB is by increasing the number of faculty working in the many areas of cancer biology. The School of Medicine did just that with a widespread recruitment effort that resulted in the addition of 12 new faculty members in a single year.

"Rather than doing recruitment in the traditional manner, where each department runs its own search for one or two people, we felt it was important to have a strategic

recruitment initiative that would involve the O'Neal Cancer Center, the School of Medicine, and many of our clinical and basic science departments," says Tika Benveniste, Ph.D., senior vice dean for Basic Sciences at the School of Medicine.

After receiving feedback from all 27 School of Medicine departments, the School of Medicine and the O'Neal Comprehensive Cancer Center worked with an ad agency to produce a national ad about the school's recruitment effort across several disciplines.

"The ad itself was sort of an eye-opener," Benveniste says. "When candidates came to visit, they met faculty from several different departments and got an appreciation for the breadth of research here and the possible collaborations. To be able to showcase many different departments and not just one really was appealing to the candidates. They could appreciate that we are very committed to growing our cancer research portfolio."

"Our rate of success was much higher than we usually see with traditional departmental searches. And those faculty brought with them significant NIH funding and even more importantly, 16 new grants from the National Cancer Institute. That's a really important criteria for the competitive renewal of our core Cancer Center grant."

Narendra Wajapeyee, Ph.D., was one of the faculty attracted to the opportunities at UAB. He made the move in 2019 from Yale University, where he was studying gene regulation mechanisms and signal transduction in cancer initiation, and working to translate those basic research findings into new therapies or diagnostic tools.



Barry Sleckman

“I see a good, long-term plan to expand the Cancer Center program here,” Wajapeyee says. “The commitment from the UAB School of Medicine leadership along with the new faculty that have come in is going to really enhance the program, both from the basic science perspective and the translational research prospective.”

“All that combined gives UAB an edge over many other places to be a premier cancer center with a strong research program. Everybody is very committed to make the O’Neal Cancer Center successful and take it to the next stage.”

Romi Gupta, Ph.D., another faculty recruit from Yale, agrees. “UAB is one of the premier institutions that is thinking ahead,” says Gupta, whose work focuses on identifying new molecules and signaling pathways that regulate cancer growth and progression. “UAB is passionate about bringing new ideas. They give us the resources to self-improve and turn challenges into opportunities. And they have a very supportive scientific environment.”

“UAB is making a significant effort to provide resources for more discoveries and innovations in health care, education, and research, and state-of-art facilities for researchers. With this new support in funding and personnel, they can enroll more cancer patients for clinical trials. This will also advance the collaborations of UAB researchers with other partner institutions and biotech companies, to provide better treatment and prevention of cancer. UAB is doing outstanding work in this area.”

LEADING-EDGE THERAPIES

A highly sophisticated radiation technology for treating cancer arrived in Alabama earlier this year with the opening of Proton International at UAB. The facility, which treated its first patient on March 11, is one of only 36 proton therapy centers in the United States and the first in Alabama.

Proton therapy uses an aimed beam of protons directed at the tumor site. The beam is configured to deliver the majority of its energy precisely at the tumor location. Healthy tissue in front of the tumor receives a minimal amount of energy, and tissue behind the tumor receives very little. This reduces the damage to healthy tissue that is common in the use of conventional X-ray radiation and is the cause of most side effects.

Proton therapy is used to treat tumors of the brain and central nervous system, spine, head and neck, lung, prostate, liver, gastrointestinal tract and colon, and some breast tumors.

“This is an exciting moment in the history of cancer care at UAB,” says James Bonner, M.D., professor and chair of the UAB Department of Radiation Oncology. “This new treatment platform allows us to treat patients with the latest technology.”

UAB Medicine Infusion Therapy moved into a new

home in The Kirklin Clinic in November, bringing personalized, team-based, state-of-the-art care to UAB’s infusion patients and their families. UAB’s Infusion Therapy is the largest and only magnet-designated infusion therapy center in the state of Alabama, expanding access to expert care with modern and patient-centered amenities.

Patients with such diseases and conditions as cancer, sickle cell disease, immune deficiencies, and auto immune diseases are commonly treated through infusion therapy, in which medication is directly inserted into a vein. UAB’s Infusion Therapy offers chemotherapy, blood products, antibiotics, immunotherapies, injections, and central line care.

CANCER AMBULATORY CENTER

Looking ahead, the biggest goal on the horizon is the proposed creation of a Cancer Ambulatory Center on UAB’s campus. The center will provide a single facility designed for multidisciplinary care, where much of UAB’s cancer care will take place.

“We currently have patients who have to navigate multiple buildings across multiple city blocks to receive care,” DeMoss says. “We want this new facility to become the front door for cancer care at UAB.”

“Right now, we don’t have an identified physical structure that creates a space for the multidisciplinary team and the patient to come together in one setting of care. For efficiency and ease, we want to decrease the burden of getting care at UAB by providing a physical infrastructure that makes it easy.”

The planning and conceptual design of the facility already is taking place, and a fundraising campaign is in the works. “A big portion of UAB’s growth has been because of the generosity of our community, and we believe this is another pride point that our community can get behind and take ownership of,” says Tom Brannan, UAB’s vice president of Advancement. “Philanthropy will be an important component of creating this facility, where people can recognize loved ones who have benefitted from cancer care at UAB and make gifts in recognition of those individuals.”

“We want this to be a world-class facility where patients throughout Alabama and the Southeast can go for world-class care. This will be the next phase of our cancer care growth at UAB.”



Jordan DeMoss



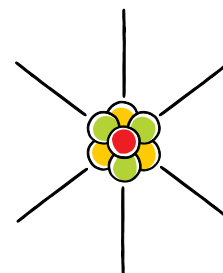
Warner Huh



Tika Benveniste



James Bonner



LEGION GOALS

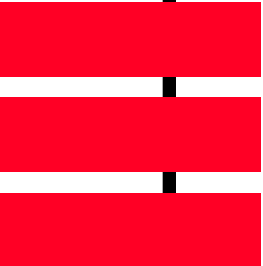


**UAB Sports
Medicine teams
up with Legion
FC soccer**

By Cary Estes



UAB orthopaedic and sports medicine physicians serve as team doctors for the Birmingham Legion. From left (in red): Kenneth McCollough, Amit Momaya, Irfan Asif, and Michael Johnson.



I**N ADDITION TO MEDICINE**, soccer is one of the great passions for Irfan Asif, M.D., chair of the UAB Department of Family and Community Medicine. Asif has played the sport since he was 5 years old, including at the collegiate level, and he still tries to kick the ball around recreationally at least once a week.

So when it was announced that a new professional soccer team, Birmingham Legion FC (football club), would begin playing in the city in 2019—with games to be held on the UAB campus, no less—Asif immediately wanted to be a part of it. Now he heads up the UAB Sports Medicine group that serves as official team physicians for Legion FC.

“One of the best things about this is I get to give back to a sport that helped me become the person I am today,” Asif says. “You think about teamwork, leadership, discipline—those are things I learned from soccer. I’m excited to contribute in helping other folks as they play the sport, by keeping them healthy and getting them back on the field after an injury.”

Legion FC is a member of the USL Championship league, which is only one level below top-tier Major League Soccer in the U.S. The club plays its home games at UAB’s BBVA Field, where their medical needs are tended to by a mixture of primary care physicians and orthopedic surgeons from UAB Sports Medicine.

“We’re definitely big fans of the team and want to see them succeed. But we’re also always on edge, watching to see if anybody gets hurt,” says Amit Momaya, M.D., head of the Sports Medicine division within the UAB Department of Orthopaedic Surgery. “It helps that the players see us all the time and know us by name. That enhances the care we’re able to provide, because they feel very comfortable in talking to us. They trust us, and we trust what they’re telling us.”

This care actually begins well before Legion FC ever takes the field to play a game. UAB Sports Medicine physicians give all the players a preseason physical—complete with an EKG—and establish training programs during the offseason to help build stamina and prevent injuries.

“Soccer is an endurance sport, so there are a lot of things you need to think about with fitness,” Asif says. “Nutrition is a big factor. You need to make sure you have the fuel for performance. So we talk quite a bit about the things athletes should be eating to maximize their full potential.

“We work with the strength and conditioning coaches to try to come up with the ideal programs to promote not just their fitness on the field but injury prevention. Knee and hamstring injuries are common in the sport. So we design injury prevention programs during the

offseason to try to minimize injuries during the season.”

When a player is injured, the UAB Sports Medicine team is responsible for treatments, including surgery, as well as any sort of rehab work needed to get the athlete back into playing shape. Steven Theiss, M.D., chair of the Department of Orthopaedic Surgery, says such work provides an enjoyable challenge for physicians.

“All sports medicine specialists are eager to care for elite athletes,” Theiss says. “Those patients are very motivated, and seeing them return and succeed in competition is the ultimate reward for sports medicine specialists.”

Partnering with Legion FC is just one of the steps UAB Sports Medicine is taking to extend its services to both athletic teams and recreational athletes. The group recently became the official sports medicine provider for the Birmingham Vulcans rugby team, and Asif says they are actively looking for other teams and organizations to partner with as well.

In addition, there is movement to expand the number of Sports Medicine clinics. This effort includes the creation of UAB’s first sports and exercise medicine fellowship training program, which Asif says will help with both clinical and research activities.

“We’re planning on having a bigger footprint in the next two years that will focus not only on sports medicine in the elite athlete, but also sports exercise medicine,” Asif says. “My motto is, ‘Everyone can be an athlete.’ So we also want to take care of regular people and find ways to get them to exercise.

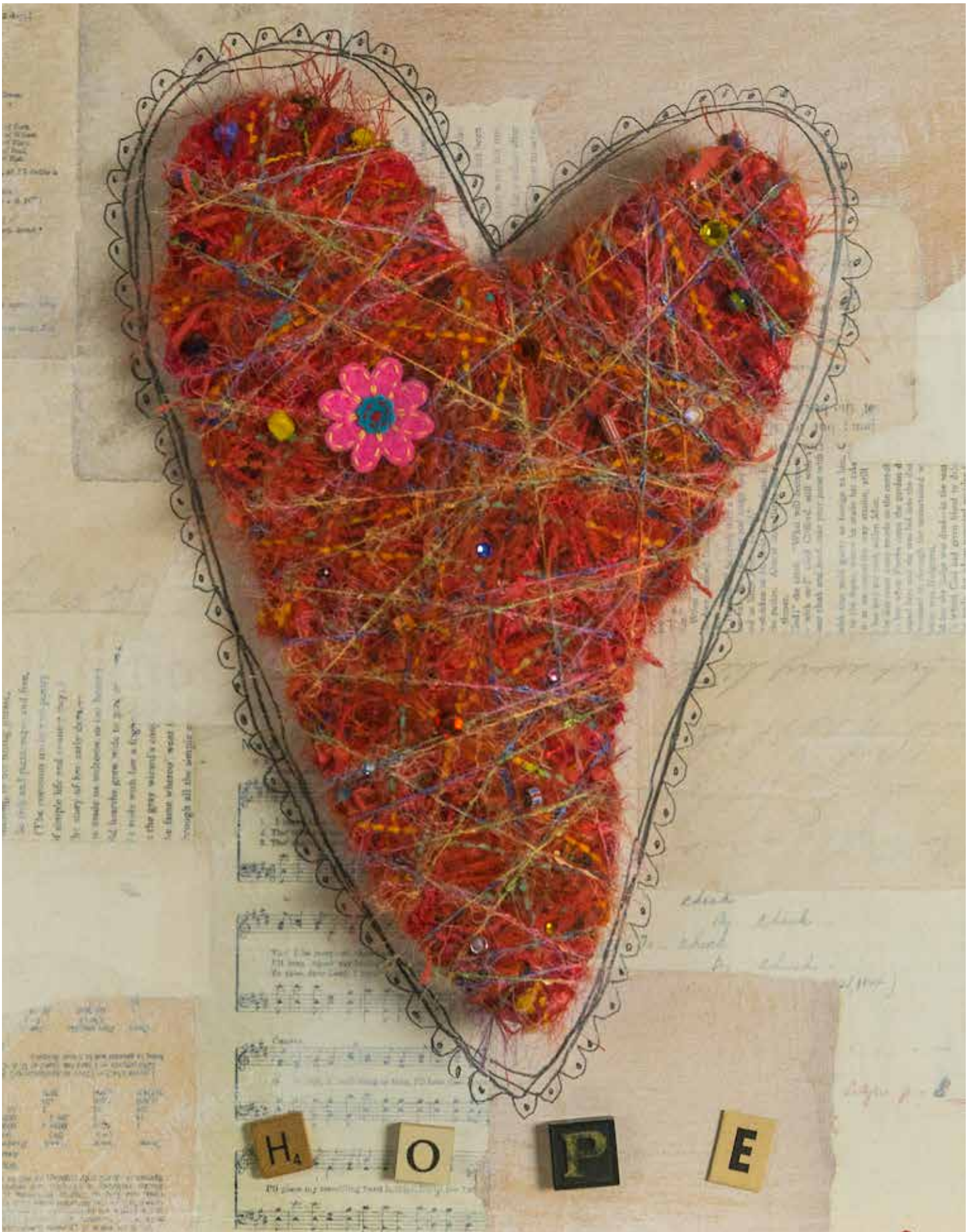
“We’ve had to do quite a bit with COVID-19 planning with both UAB and the Legion this year, which has been interesting. One of the biggest risks to playing if you’ve had COVID is risk for heart issues.”

All of this is something that UAB Sports Medicine has been doing for years with UAB Blazer Athletics. It is a relationship that has been enhanced recently with the national attention received by the success of the UAB football team.

“As we’ve seen the growth of UAB Athletics, we’ve grown right along with them,” Theiss says. “We work in close partnership with UAB Athletics. They support us and we support them in order to make both of us successful.

“Good sports medicine is a collaboration among the coaching staff, the training staff, the athletes, the medical staff, and the medical facilities. All those people have to work in concert in order to have a successful sports medicine program. That’s what we are continuing to build at UAB, in order to bring our Sports Medicine program to national prominence.”





Providing Hope

A counselor reflects on the lessons she's learned working in palliative care

By Kay Knowlton, Ph.D., LPC

In the past two decades, the UAB Center for Palliative and Supportive Care (PCCU) has grown into one of the largest and most comprehensive clinical care, education, and research enterprises focused on palliative care in the U.S. To celebrate its 20th anniversary, the palliative care team created a book of essays titled "Restoring the Art of Healing: Stories of Palliative Care" to highlight the program's history and the people who have helped it succeed along the way. The following is an essay from the book.

I remember a patient who had a seven-year-old granddaughter who came to visit every day. The girl's mother was crying and she was crying. She didn't want her grandmother to die. One day I asked her if she wanted to do a handprint with her grandmother—her print on one side of the page and her grandmother's on the other. I told her to talk to her grandmother and tell her whatever she wanted to say. She told her grandmother that she didn't want her to go to heaven, but she knew that's where she was going. She said her grandmother would always be with her and she'd keep that handprint forever.

The PCCU is a different culture from the rest of the hospital. It really is holistic medicine, which is so humane, passionate, and caring. Our physicians are different; they don't pretend to know everything. They're open and eager to learn new things and they respect their patients. They don't impose their own beliefs.

The impact of educating people about palliative care is monumental. Most people think palliative care is only for end of life, but we can help people have a much better quality of life for years. Palliative care provides hope and support for ways patients' lives have changed.

The bottom line for me is that we're all about caring for our patients and their families, helping them find some meaning and peace in death or coming death. We don't always deal with death very well. One of my colleagues was telling me that in his culture, what color you wore to a funeral was important. If you were close with the deceased, you wore all black. If you were friends, you wore gray. If you were an acquaintance of the deceased, you wore white. We have so many ways of expressing our grief and mourning, all of which are a recognition of the coming and going, the entering and passing. We all got here the same way and we all leave through death. We attend to people in their death as much as we celebrate a newborn.

"Heart and Hands," 2010, by Darrell Ezekiel (at left), was created specifically for the Palliative and Comfort Care Unit as part of the unit's ongoing Art Project, which secures appropriate art works by Birmingham area artists or collectors for permanent display in the inpatient PCCU.

Kay Knowlton has been with the PCCU since the unit opened in 1998 and currently serves as a counselor and supervisor. "Restoring the Art of Healing: Stories of Palliative Care" is available for purchase on the UAB Center for Palliative and Supportive Care website at www.uab.edu/medicine/palliativecare under the About tab.



A Visit from the NIH Director

Looking to the future of research with Francis Collins

By Matt Windsor

SPEAKING TO A PACKED AUDIENCE AT

UAB on March 6, Francis Collins, M.D., Ph.D., director of the National Institutes of Health (NIH), shared his picks of 10 “areas of particular excitement and promise” in biomedical research. (He also shared his thoughts on the then-emerging threat of COVID-19. While Alabama was still a week away from its first confirmed COVID-19 case, Collins told the UAB audience, “I will be amazed if you don’t have a case in the next week or two.”). At the conclusion of his talk, Collins shared his advice for young scientists.

In nearly every area of research Collins discussed, UAB scientists are helping to lead the way. Here is Collins’ top 10 list, along with some of the UAB work ongoing in each area.

1 SINGLE-CELL SEQUENCING

“I am so jazzed with what has become possible with the ability to study single cells and see what they are doing,” Collins said. “They have been out of our reach—now we have reached in. Whether you are studying rheumatoid arthritis, diabetes or the brain, you have the chance to ask each cell what it is doing.”

UAB Link: Robert Carter, M.D., the acting director of the National Institute of Arthritis and Musculoskeletal and Skin Diseases, was the longtime director of UAB’s Division of Clinical Immunology and Rheumatology. For the past several years, UAB researchers have been studying gene expression in subpopulations of immune cells in patients with rheumatoid arthritis.

2 NEW WAYS TO SEE THE BRAIN

The NIH’s BRAIN Initiative is making this “the era where we are going to figure out how the brain works—all 86 billion neurons between your ears,” Collins said. The linchpin will be the development of tools to identify new brain cell types and circuits that will improve diagnosis, treatment, and prevention of autism, schizophrenia, Parkinson’s, and other neurological conditions, he said.

UAB Link: The lab of BRAIN Initiative grantee Harrison Walker, M.D., of the Department of Neurology, “has been developing a more sophisticated way to understand the benefits of deep brain stimulation for people with Parkinson’s and maybe other conditions,” Collins said.

3 INDUCED PLURIPOTENT STEM CELLS

Researchers can now take a blood cell or skin cell and, by adding “four magic genes,” Collins explained, induce the cells to become stem cells. These induced pluripotent stem (iPS) cells can then in turn be differentiated into any number of different cell types. The NIH has invested in technology to put iPS-derived cells on specialized tissue chips. “You’ve got you on a chip,” Collins explained. “Some of us dream of a day where this might be the best way to figure out whether a drug intervention is going to work for you or you’re going to have a bad consequence.”

UAB Link: A cutting-edge cardiac tissue chip developed by a UAB team led by Palaniappan Sethu, Ph.D., of the Department of Biomedical Engineering and the Division of Cardiovascular Disease, “allows the development of cardiomyocytes that can be used to study heart failure” and other conditions, Collins said.

4 MICROBIOME ADVANCES

It is clear that “we are not an organism—we are a superorganism,” Collins said, formed with the trillions of microbes in and on our bodies. This microbiome plays a significant role not just in skin and intestinal diseases but “much more broadly.”

UAB Link: Work led by Casey Morrow, Ph.D., and Casey Weaver, M.D., co-directors of the Microbiome/Gnotobiotics Shared Facility, has revealed intriguing information about how antibiotics affect the gut microbiome, which has implications for understanding, preserving, and improving health, Collins said.

5 INFLUENZA VACCINES

Another deadly influenza outbreak is likely in the future, Collins said. “What we need is not an influenza vaccine that you have to redesign every year, but something that would actually block influenza viruses,” he said. “Is that even possible? It just might be.”

UAB Link: We’re probably at least a decade away from a universal influenza vaccine. But work ongoing at UAB in the NIH-funded Antiviral Drug Discovery and Development Center, led by Distinguished Professor Richard Whitley, M.D., is focused on such an influenza breakthrough.

6 ADDICTION PREVENTION AND TREATMENT OF PAIN

The NIH has a role in tackling the opioid crisis, Collins said. The NIH’s Helping to End Addiction Long-term (HEAL) initiative is an “all-hands-on-deck” effort, he said, involving almost every NIH institute and center, with the goal of uncovering new targets for preventing addiction and improving pain treatment by developing non-addictive pain medicines.

UAB Link: NIH Centers of Excellence in Pain Education (CoEPE), including one at UAB, are hubs for the development, evaluation, and distribution of pain-management curriculum resources to enhance pain education for health care professionals.

7 CANCER IMMUNOTHERAPY

“We are all pretty darn jazzed about what’s happened in the past few years in terms of developing a new modality for treating cancer—we had surgery, we had radiation, we had chemotherapy, but now we’ve got immunotherapy,” Collins said. Educating

immune system cells to go after cancer in therapies such as CAR-T cell therapy is “the hottest science in cancer,” he said. “I would argue this is a really exciting moment where the oncologists and the immunologists together are doing amazing things.”

UAB Link: “I had to say something about immunology since I’m at UAB given that Max Cooper, who just got the Lasker Award for [his] B and T cell discoveries, was here,” Collins said. “This is a place I would hope where lots of interesting ideas are going to continue to emerge.”

8 ALL OF US RESEARCH PROGRAM

The NIH All of Us Research Program aims to enroll a million Americans—to move away from the one-size-fits-all approach to medicine and “really understand individual differences,” Collins said. The program, which launched in 2018, has a prevention rather than a disease treatment approach; it is collecting information on environmental exposures, health practices, diet, exercise, and more, in addition to genetics, from participants.

UAB Link: “UAB has been doing a fantastic job of enrolling participants,” Collins noted. In fact, the Southern Network of the All of Us Research Program, led by UAB, has consistently been at the top in terms of nationwide enrollment.

9 RARE DISEASES

“The NIH needs to play a special role” because many diseases are so rare that pharmaceutical companies will not focus on them, Collins said. “We need to find answers that are scalable, so you don’t have to come up with a strategy for all 6,500 rare diseases.”

UAB Link: The Undiagnosed Diseases Network, including a UAB site led by Chief Genomics Officer Bruce Korf, M.D., Ph.D., is a national network that brings together a wide range of experts to help patients. Patients and providers can also contact the UAB Precision Medicine Institute, led by Director Matt Might, Ph.D. The institute develops precisely targeted treatments based on a patient’s unique genetic makeup.

Collins also credited UAB’s Tim Townes, Ph.D., professor emeritus in the Department of Biochemistry and Molecular Genetics, for developing “the most significantly accurate model of sickle cell disease in a mouse which has been a great service to the [research] community.” UAB is now participating in an exciting clinical trial of a gene-editing technique to treat sickle cell along with other new targeted therapies for the devastating blood disease.

10 DIVERSITY IN THE SCIENTIFIC WORKFORCE

“We know that science, like everything else, is more productive when teams are diverse,” Collins said. “My number one priority as NIH director is to be sure we are doing everything we can to nurture and encourage the best and brightest to join this effort.”

UAB Link: The Neuroscience Roadmap Scholars Program at UAB, supported by an NIH R25 grant, is designed to enhance engagement and retention of under-represented graduate trainees in the neuroscience workforce. It is one of several UAB initiatives to increase diversity in science. These include several programs from the NIH-funded UAB Minority Health and Health Disparities Research Center that support minority students from the undergraduate level to postdocs.

Learning by Doing

Medical student plays pivotal role in diagnosing rare neurological disease

By Rosalind Fournier

LAST FALL, WHEN THEN third-year Montgomery Regional Medical Campus medical student Zachary Sollie first met Thomas Jones while rotating through Medical Outreach Ministries in Montgomery, Jones was experiencing uncontrollable movements in his extremities, especially his legs. The physicians suspected an underlying neurological condition, but which one? The symptoms fit Huntington's disease, but the disease is relatively rare and always hereditary. Jones had no known family history.

Moreover, the clinic—which provides free medical care to uninsured and underserved patients in the area—typically serves patients with more common conditions such as diabetes or hypertension, explains Richard Cyrus, M.D., a retired cardiothoracic surgeon who volunteers at the clinic.



Victor Sung

“It’s not every day that we have something that’s totally undiagnosed and outside of my knowledge,” Cyrus says.

Sollie, however, had not only studied Huntington’s recently, but he had learned about it from an expert—Victor Sung, M.D., an associate professor of Neurology who serves as director of the UAB Huntington’s Disease Clinic. Sollie recognized Jones’ symptoms as classic Huntington’s from videos Sung had shown of Huntington’s disease patients. He also remembered from Sung’s lectures that patients may not present with a family history, because in some cases the history is unknown to the patient.

“Huntington’s is one of those diseases that is very textbook, where we learn about it in the classroom and then aren’t likely to see it in real life,” Sollie says. “That’s where my role as a student came into play, because I encountered it within a year of studying it.”

Huntington’s disease causes progressive degeneration of nerve cells in the brain, resulting in cognitive disorders along with loss of motor control. Sollie acknowledges it is a difficult prognosis for patients to hear. However, as a student of Sung’s, Sollie was able to do more than pinpoint the diagnosis; he also knew to recommend that Jones be

referred to Sung’s clinic, which offers a highly specialized, comprehensive level of care for these patients.

“We’re able to provide hope on multiple levels,” says Sung, who has served as director of the clinic since 2011. “There are things we can do in our clinic that will help Mr. Jones today, but also, because of where the research is, there is real hope. There are real gene-silencing trials ongoing now and more coming.”

The UAB Huntington’s Disease Clinic is the only one of its kind in Alabama and Mississippi to be sponsored by the Huntington’s Disease Society of America. That designation reflects a level of comprehensive care that includes not only medical care but physical, occupational, and speech therapy; genetic testing; and access to a psychiatrist, nutritionist, and social worker. For a patient like Jones, pairing the relief of finally having a diagnosis with access to a clinic offering tangible help can be a life changer.

“There are multiple FDA-approved treatments for Huntington’s disease, and I think a lot of people in the community are not aware of those,” Sung says. “We are very familiar with those treatments and prescribe them, so we see our patients get better. Their quality of life is better.”

Jones is now being treated

in the clinic and receiving medication. A social worker is even working to help him get disability benefits, and Sung says the family has expressed their gratitude to “Zach and to UAB, for the innumerable ways UAB’s resources have completely transformed their family’s life in just a few short weeks.”

In a letter circulated among School of Medicine leadership, Sung wrote about the significance of Sollie’s contribution to Jones’ case: “I think this is such a fabulous story of bridging pre-clinical teaching to enhancing clinical care and transforming the lives of real patients.”

While Sollie does not plan to pursue neurology—he is hoping to go into cardiothoracic surgery—he says he feels gratified to have played a role in helping Jones get the care he needs. “It was very cool to be involved in this case and see the textbooks come to life,” he says. “A big thing in (Jones’) scenario for me is that it really hammers home the patient-centered care, patient-centered approach taught to us in our training. The patient was distressed about these symptoms and didn’t have an answer. So being able to take the knowledge and help this patient with a diagnosis, and connect him with the resources he needs, it was great to see that pan out.”



Zachary Sollie

Stage Craft

Get to know some of the 2020 Best Medicine Show performers

By Rosalind Fournier

ON FEBRUARY 28, UAB MEDICAL

students and faculty, along with friends and family, gathered at the Birmingham-Jefferson Civic Center for the 10th Annual Best Medicine Show. This annual variety show raises money for Equal Access Birmingham, the medical student-run clinic for underserved populations in Birmingham. Featuring everything from musical and dance performances to live skits and short films, the evening showcased the talents of UAB medical students and proved, as its name suggests, that laughter is indeed the best medicine. Here are a few of the performers who shined at the show.

Aaron Landis, a rising MS3, has always had a creative side. But since starting medical school, he's mostly pushed it aside—with one notable exception. This year his first-ever short film made it into the show: a takeoff on the trailer for "A Star Is Born," with Lada Gaga's character dressed as a parasite—specifically, *Ascaris lumbricoides*, leading to the film's punch line, "Ascaris born." Landis says making the film was a great chance to work with friends Kush Patel, Saad Khan, Eric Kim, Ayo Ayokanmbi, and Rahul Gaini.

A native of Florence, whose parents are pharmacists and whose grandmother was a code nurse, Landis fell in love with medicine early on and is considering either pediatrics or internal medicine. But he'd also like to build on his newfound skills in video. "Expect more to come," he says.

The Best of Medicine show has come a long way from its early years, when it was known as Skit Night and held in a lecture room. But the spirit remains the same, says **Callie Perkins**, a 2020 graduate who directed this year's Best Medicine Show. "It provides a unique opportunity for students to express themselves," Perkins says. "It's also a way to get the whole student body involved, whether someone is interested in helping with the tech aspects of the show or wanting to showcase their talents."

As a child of parents in the military, Perkins lived in a lot of places growing up, but she was ultimately drawn to UAB School of Medicine to make a positive change in the community. "I became fascinated with health disparities and the social determinants of what makes a person healthy or not healthy," she says. "I have been very encouraged by seeing physicians trying to make a positive change in that realm." This summer, she begins an OB/GYN residency at the University of Oklahoma College of Medicine.

Veena Danthuluri, a rising MS4, has always enjoyed sharing her Indian culture with others, so participating in the Best Medicine Show by performing a Bollywood dance, along with Vinayak Memula and Meghana Gaini (also rising MS4s), was a natural extension of that. "I grew up learning Indian classical dance and doing Bollywood dance performances," Danthuluri says, describing Bollywood dancing as highly energetic, with the songs straight out of Bollywood films. "People who don't normally dance tell me they love it after they try it."

Growing up in Huntsville in a family of physicians, Danthuluri became interested in medicine at a young age and began shadowing doctors as an undergraduate at the University of South Alabama.

Desalyn Johnson's performance in the show grew out of an evening she spent experimenting with pairing poetry and guitar with her friend Chibuike Obinwa (both are rising MS2s). Obinwa played guitar while Johnson recited a favorite Maya Angelou poem, "Phenomenal Woman." "We said, 'You know, we could do this for the Best Medicine Show,'" Johnson remembers. She says she chose "Phenomenal Woman" for its message of empowerment. "It speaks not only to female empowerment, but also to how everyone should feel about themselves. We must know that our value doesn't come from our

abilities, our intelligence, or our physical appearance. It comes from the phenomenal greatness that is inherent in each person."

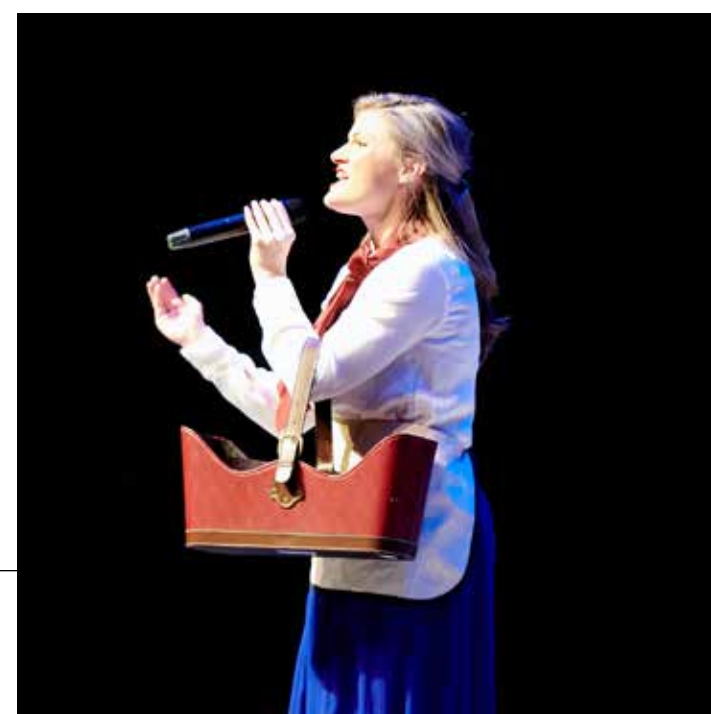
Johnson, who is from Huntsville, says she's pursuing a medical career out of a passion for learning. "To me, there is no better way to use my love of learning to make a positive impact on my community."

Vincent Bolus, a rising MS2, sang in a cappella groups throughout high school and college, but he'd never performed with a band until he and a group of friends decided to play in the Best Medicine Show this year. His roommate, Caleb Carroll, signed on right away to be the frontman; next they recruited Alex Harrelson on bass and Michael Liptrot to play saxophone. All they needed was a name.

"We came up with NSyncope," Bolus says. "It's a play on the boy band *NSYNC and syncope, which is basically a fainting spell." The medical pun paired neatly with the slyly ironic title of the song they selected: "I Don't Need No Doctor."

Bolus grew up in Birmingham as the son of a UAB radiologist, David Bolus, M.D. He says having a physician for a dad left him with mixed feelings—he admired his father's work but also saw the demands it imposed. "I think the fact that I tried to shy away from it, but it kept calling me back kind of speaks to the call of medicine," says Bolus, who wants to pursue a specialty in oncology.

Top row, left to right: The fourth-year class dance was directed by Pranaya Chilukuri (center); Brooke Becker sings "I'll Never Love Again," from the film "A Star Is Born." Middle row, left to right: Meghana Gaini, Veena Danthuluri, and Viny Memul perform a Bollywood dance; Vince Bolus recruited friends to perform as NSyncope, a takeoff on the boy band *NSYNC. Bottom row, left to right: Desalyn Johnson performs the Maya Angelou poem "Phenomenal Woman," accompanied by Chibuike Obinwa; Annabeth Brewton sings as part of a Disney medley.



School Ties

Medical Alumni Association leaders on current priorities and future goals

By Brian Hudgins

V. MICHAEL BIVINS, M.D., KNOWS

something about growing up in a small town with dreams of a career in medicine. A Brundidge, Alabama, native and 1996 School of Medicine graduate, Bivins is the president-elect of the University of Alabama Medical Alumni Association (MAA). He and current MAA President John Wheat, M.D., are heading a taskforce the MAA has formed around supporting scholarships for medical students who are from populations that are underrepresented in medicine (URiM), and increasing diversity in Alabama's health care workforce.

"The MAA recently donated \$100,000 for scholarships for qualified in-state medical students from URiM groups, and those funds have been matched by the Dean's Office," Bivins says. "We are also working to help students who are interested in science get into premed programs. That includes making sure they understand what they need to do to get qualified for medical school."

Selwyn Vickers, M.D., FACS, senior vice president for medicine and dean of the UAB School of Medicine, says both the gift and the MAA's enthusiasm for the school's diversity and inclusion efforts are critical to their success. "Diversity is vital to excellence," he says. "In order to attract the best people to an organization and have the best ideas within an organization rise to the top,

an environment must exist that is inclusive and diverse. We are immensely grateful for the MAA's support and leadership in this area."

Bivins knows firsthand the benefits of being able to connect with other students and mentors who faced some of the same challenges getting accepted to and navigating medical school. Before Bivins earned his undergraduate degree from The University of Alabama, he participated in co-op programs during high school. "What lightened the burden for me was having other students around me who also felt a little lost," Bivins says. "So when you are in a group of lost people, you don't feel quite as lost."

Entering medical school at UAB meant adjusting to a new city and a new learning environment, while also finding your identity. "If you have a bunch of new information coming at you, it can be a little overwhelming," Bivins says. "I commend the School of Medicine because they have the Office of Diversity and Inclusion that can help these young people get acclimated."

John Wheat, M.D., a 1976 School of Medicine graduate and the current MAA president, has a passion for encouraging Alabama kids to contribute to answering the most pressing patient care needs within the state. He founded and, for 21 years, directed the Rural Medical Scholars Program,

which is intended to address the shortage of primary care physicians in Alabama's rural communities. On average, 11 students are admitted to the five-year medical education program of The University of Alabama and the UAB School of Medicine. Rural Alabama students enter the program that includes early admission to the School of Medicine, and is preceded by a master's in Rural Community Health.

"It all starts with getting kids from those communities—who grew up in small towns and know that culture—involved in medicine," Wheat says. "Once we do, how do we help sustain them in these communities so they feel they are just as respected professionally as they would be in Birmingham, Huntsville, or Atlanta? And how do we help them maintain their identity with their communities and their desire to be there? These questions have implications for how you educate these students. They also have implications for how you get them into medical school. Some kids are going to look different on paper from the typical medical student, but it's not because of a lack of academic firepower. It's a different kind of exposure they had growing up. Providing flexibility in the way these students engage with medical education goes a long way toward effectively developing their potential for excellence in academic and clinical

reasoning."

"I would say it's not just rural areas that are highly underserved," Bivins says. "There are urban areas also that have the same challenges around poverty, education, and access to health care. All those things seem to travel in the same pack."

As Wheat and Bivins work on the MAA taskforce that is tackling issues of representation and diversity in medicine, Wheat is enthusiastic about the potential of Alabama students when it is paired with the expanded opportunity that these new scholarships will represent.

"Right now, what excites me most is the discussions we're having with Dr. Vickers about how to get more qualified URiM students into the School of Medicine," Wheat says. "I am proud the MAA board has become very energized around that idea and really pushed us in that direction. I think that will be a big story coming out of the MAA for the next two, three, or four years."

Top left to right: V. Michael Bivins is president-elect of the Medical Alumni Association. He will succeed current MAA President John Wheat. Bottom: Wheat and Bivins are pictured with School of Medicine Dean Selwyn Vickers at the 2020 Medical Alumni Weekend this past February.





Expanding Opportunities

Scholarship gifts are advancing diversity and representation in medicine

By Jane Longshore

THE UAB SCHOOL OF MEDICINE is committed to recruiting and supporting a more representative and inclusive student body to better serve the health care needs of our increasingly diverse society. This commitment is not merely about equity; it is about excellence. It represents the school's core belief in the power of different perspectives and experiences to enrich the learning environment. Several recent scholarship gifts to the school are helping meet that commitment.

This past spring, the school's Medical Alumni Association made a \$100,000 gift to support scholarships

for qualified in-state medical students from groups considered underrepresented in medicine (URiM). According to the Association of American Medical Colleges (AAMC), underrepresented in medicine means "those racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population." The MAA's gift to current-use URiM scholarships is being matched by the School of Medicine Dean's Office for \$200,000 in total funding. The MAA has also launched an Underrepresented in Medicine Task Force focused on developing support for

exceptional Alabama URiM students to attend and thrive at the School of Medicine.

According to MAA President John Wheat, M.D., and President-Elect V. Michael Bivins, M.D., "The MAA Board was excited by [School of Medicine Dean] Vickers' report last year of the great health care need in the Black Belt and the School of Medicine's desire to recruit more exceptional URiM students, especially those who relate to the Black Belt. After much deliberation, we determined that URiM students from Alabama would be a major asset in helping address these needs. We made recruitment and support for such students

our priority and were gratified by the School of Medicine's enthusiastic endorsement and decision to join us in this URiM initiative." For more about the MAA's URiM efforts, see page 30.

Gail Cassell, Ph.D., co-chair of the School of Medicine's Board of Visitors, and her husband Ralph Cassell recently made a scholarship gift commitment that is also being matched by the Dean's Office. The Wilkerson-Lacey Endowed Medical Scholarship will be awarded for the 2020/2021 academic year and is specifically designed to help the school recruit Alabama URiM students. The scholarship is a

combination endowment and sponsored scholarship, so it benefits students both in the present and in the future, with the goal of providing at least half the cost of tuition and fees to at least one deserving recipient annually.

Co-chairing the school's Board of Visitors isn't Cassell's only tie to UAB; she was a faculty member for a decade and also served as the Charles H. McCauley Professor and Chair of the UAB Department of Microbiology for 10 years. She is a senior lecturer in the Department of Global Health and Social Medicine at Harvard Medical School, and a senior scientist in the Division of Health Equity at Brigham and Women's Hospital, Boston. She retired from Eli Lilly and Co. as vice president for scientific affairs and Distinguished Lilly Research Scholar in Infectious Diseases.

The scholarship is named for two important figures from the Cassells' life. "Lillian Wilkerson worked with my family for 17 years, and was instrumental in enabling my husband and I to have the careers we've had," Cassell says. "We wanted very much to honor her for her loyalty, dedication, skill, and character. Her grandson, Ontario Lacey, is equally extraordinary, as he overcame many obstacles to successfully obtain his medical degree at the age of 40. He currently is completing his residency in the Navy as Lieutenant CG 1 Marine Expeditionary Force Information Group Surgeon."

Cassell says she and her husband hope the scholarship will address some longstanding inequities in medicine. "Although improvements have occurred in the number of underrepresented minorities attending medical schools, substantial gaps have emerged

and continue to increase. Notably, the number of African-American men attending medical schools is not increasing as fast as the number of African-American women. While no doubt many factors contribute to these gaps, financial constraints are a major factor. Our family is pleased to have the opportunity to honor Mrs. Lillian Wilkerson and Dr. Ontario Lacey. We hope our gift will make it possible for other equally exceptional and deserving young men to fulfill their dreams."

The Capital City Medical Society Endowed Medical Scholarship was initially established in 2017. The purpose of the scholarship is to provide financial assistance to deserving medical students studying at UAB's Montgomery Regional Medical Campus. The Capital City Medical Society (CCMS) serves as the collective voice of African-American physicians in Montgomery and in Alabama's River Region. It is committed to improving the quality of health among minorities and medically underserved populations.

The initial fundraising effort was led by CCMS leaders and School of Medicine alumni William Abernathy Jr., M.D.; Joel McCloud Jr., M.D.; John Jernigan, M.D.; Vickers; and Montgomery Regional Campus Dean Emeritus Wick Many Jr., M.D., with the goal of meeting the \$25,000 endowment minimum and eventually raising \$100,000 for the scholarship. Vickers agreed to match scholarship contributions to help achieve this goal.

The CCMS held their first seated cocktail dinner to benefit the scholarship in September, 2018, followed by another in October 2019. With matching funds from the Dean's Office, CCMS dinner benefit proceeds,



and donations from many alumni and friends, this past fall the CCMS the CCMS has raised over two-thirds of their \$100,000 endowment goal, with match monies enhancing student awards in the present.

"CCMS is dedicated to providing great patient care and enrichment for the community," says LaToya Clark, M.D., an OBGYN physician with The Jackson Clinic in Montgomery and CCMS vice president and scholarship chair. "We are also committed to giving back and this scholarship not only allows us to help up-and-coming physicians, but to also encourage locally trained physicians to stay and work in this thriving community."

"Diversity is vital to excellence, and it's also vital to improving patient care," says Vickers. "At the School of Medicine, we believe providing culturally competent health care is key to reducing, and

ultimately eliminating, a range of health care disparities among African-Americans, Hispanics, and other medically underserved populations. To make a true, lasting impact on such disparities, we need those populations and communities represented in our classrooms, laboratories, clinics, and leadership roles. These scholarship gifts help our school meet that mission, and I am deeply grateful to the MAA and CCMS, as well as the Cassells, for their generous support."

To make a gift to medical scholarships, contact Jessica Brooks Lane at 205-975-4452 or jblane@uab.edu. Gifts to the School of Medicine Minority Medical Scholarship are being matched by the dean's office through September 2020. Give online at go.uab.edu/medminorityscholarship.



Guarav Jain

The Gift of Care

\$2 million gift supports research and care for kidney disease patients

By Holly Gainer

APPROXIMATELY 14% OF PEOPLE IN THE U.S. suffer from chronic kidney disease, with nearly half a million people on dialysis, according to the National Institutes of Health. To improve patient care and continue the search for a cure to the disease, the Charles and Hilda Anderson family has made a \$2 million gift to the UAB Division of Nephrology.

The gift established an endowed professorship, will fund important investments, such as the recruitment and retention of top renal scientists, and creates a Research Acceleration Fund to provide resources for the advancement of promising kidney-related research.

Guarav Jain, M.D., a nephrologist who cares for Mrs. Anderson, is now the Anderson Family Endowed Professor of Nephrology.

“When we began dialysis, I did not realize that our nephrologist, in this case Dr. Jain, would become a doctor in every field for us. Anything that happens to my

wife medically, we call Dr. Jain first,” says Charles Anderson. “He either gives us an answer or points us in the right direction to get an answer. I have learned that, contrary to other disciplines, a nephrologist has to be a doctor of all types of medicine. He has been remarkable in that regard. He is not only one of the smartest physicians we’ve encountered, but also the most caring.”

“The Anderson family, especially Charles and Hilda Anderson, have been generous supporters of UAB Medicine for a long time,” Jain says. “This gift creates exciting opportunities for our division to expand on our academic mission, with specific goals to advance research and improve kidney health.”

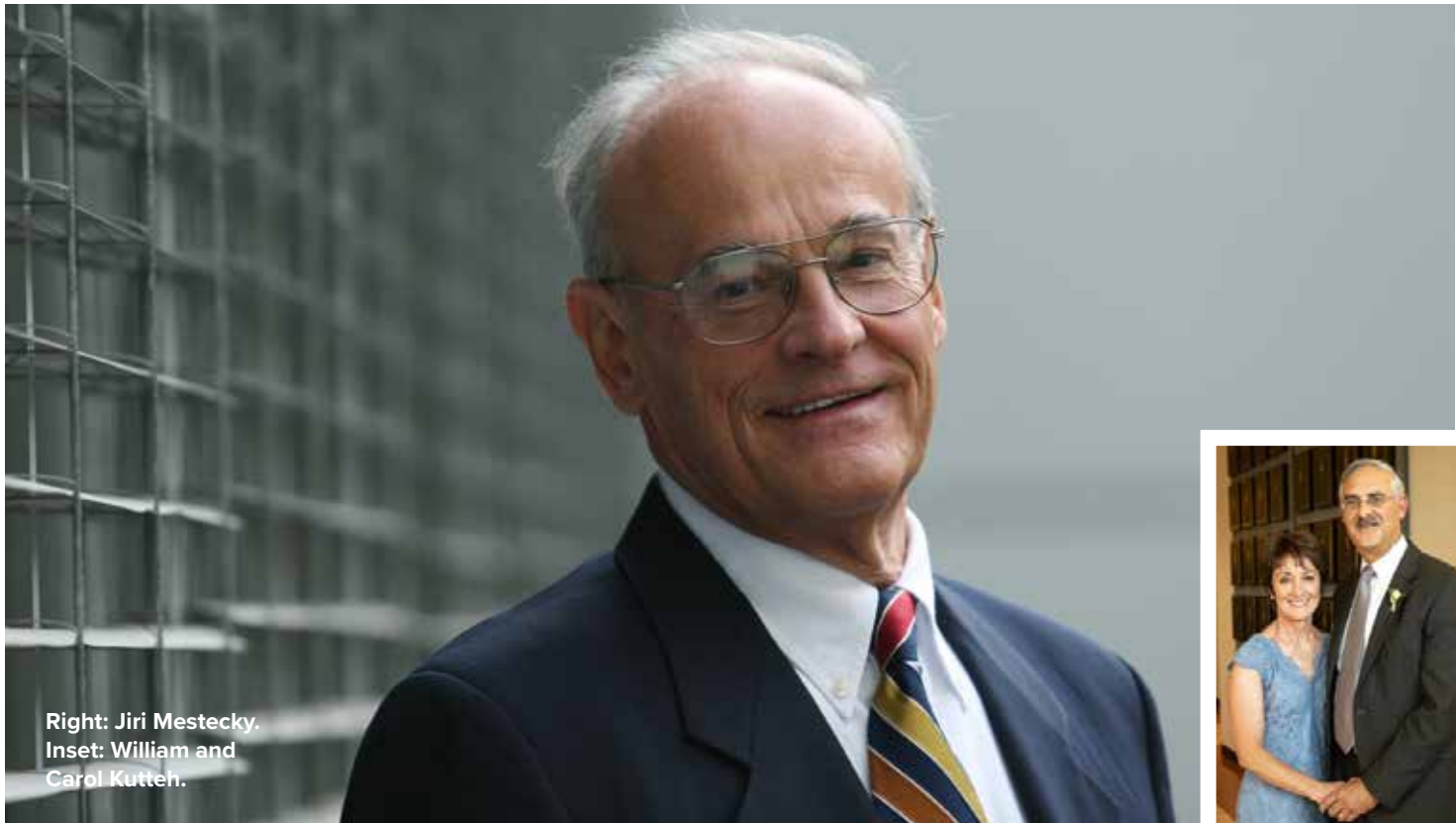
“The funding for an endowed professorship allows us to recognize a faculty member who is an outstanding clinician and has helped improve the quality of care that we deliver to our patients,” says Anupam Agarwal, M.D., director of the Division of Nephrology and the executive vice dean of the UAB School

of Medicine. “The funds for strategic recruitment are also key as it helps us bring the best nephrologists and researchers to Birmingham.”

Agarwal says the gift will benefit patients facing life-threatening kidney disease by generating novel research ideas that hold the potential for new, disease-modifying treatments and improved patient outcomes.

“We wanted part of the gift to go toward research because we want to help fund anything that may make life easier for patients who live with kidney failure,” Anderson says. “We are proud of the fact that UAB, one of the nation’s finest teaching and research hospitals, is located in Alabama, and we want to help continue its tradition of excellent care and innovation.”

To make a gift to UAB Nephrology, contact Megann Bates Cain at 205-934-7408 or meganncain@uabmc.edu.



Right: Jiri Mestecky.
Inset: William and
Carol Kutteh.

Honoring an Extraordinary Career

Gift commitment establishes new endowed chair in Microbiology

By Jane Longshore

THE INFLUENCE OF A MENTOR CAN PERMEATE AN ENTIRE CAREER.

William Kutteh, M.D., Ph.D., knows that from experience. Currently director of Fertility Associates of Memphis, he earned his Ph.D. in molecular cell biology from UAB in 1981, under the mentorship of Jiri Mestecky, M.D., Ph.D. After earning his M.D. from Wake Forest University School of Medicine, Kutteh returned to UAB to complete an OBGYN residency. Carol Kutteh, M.D., his wife, is also a UAB OBGYN residency alumna.

In fall 2019, the Kuttchs made a generous commitment to establish an endowed faculty scholar fund as an initial step toward establishing the Dr. Jiri Mestecky Endowed Chair in the Department of Microbiology. “Hopefully, everyone can look back on their career and identify a few key individuals and mentors who encouraged them to continue on their path,” says William Kutteh. “Dr. Mestecky was one of those key mentors for me. It is difficult to imagine where my path would have led if I had not had the experiences I did working at UAB in his lab. Because I had that wonderful formative experience with Dr. Mestecky as a mentor, years later I applied to return to UAB for the excellent OBGYN residency program, and that’s where I met my wife of 30 years.”

Jiri Mestecky, M.D., Ph.D., came to UAB from the former Czechoslovakia in 1967 as a postgraduate fellow in the Department of Microbiology. He has since spent more than five decades investigating the structure, biosynthesis, and function of human and animal immunoglobulin A (IgA) and immune responses. He

was among the first scientists to develop reliable assays for the measurement of mucosal HIV immune responses, to investigate correlates of HIV transmission, and to join in efforts to develop vaccines to prevent the infection. Add to that his other foundational work in mucosal immunology, and it’s an astounding résumé.

“Looking back, it’s easy to see why Dr. Mestecky deserves to be honored in this way,” says Kutteh. “We hope this endowed chair will help the Department of Microbiology recruit and retain the best faculty in the world—individuals just like Dr. Mestecky.”

Frances Lund, chair of the Department of Microbiology, says, “We are extremely grateful to the Kuttchs for their very generous gift. Today, as the world’s scientists rush to test treatments for the immune-induced lung damage caused by COVID-19 and to develop vaccines to protect the lung and intestines from infection with SARS-CoV-2, we are heavily reliant on the pioneering studies of Dr. Mestecky and his colleagues. The endowed chair established by the Kuttchs will allow the Department of Microbiology to attract and retain top scientists who will not only address questions that are relevant to the challenges we now face but will add to the foundation of knowledge that Dr. Mestecky built.”

To make a gift to UAB Microbiology, contact Ivy Watson at 205-934-9157 or iwatson@uabmc.edu.

ACROSS Campus

Events, announcements, and achievements in the academic life of the School of Medicine



Remaking Match Day

Due to the coronavirus pandemic, this year's Match Day—when graduating medical students across the country learn where they will conduct their residencies—was very different from previous years. The school had to cancel its in-person event, and while the fourth-year class, which boasted a 99% match rate, was understandably disappointed, they resolved to make the most of the day. Instead of the typically raucous gathering at the Alys Stephens Center, students gathered in small groups with fellow classmates, friends, and family on March 20 to share the news of where the next stage of their training journeys will take them. Many students shared photos and videos of their celebrations on the School of Medicine's Instagram feed.

More than 38 percent of UAB's graduating medical students matched into primary care residency programs, which include family medicine, internal medicine, pediatrics, and medicine-pediatrics. The other top five specialties into which students matched include surgery (16), OB/GYN (12), anesthesiology (12), emergency medicine (12), and neurology (9).

UAB also celebrated a successful recruitment for residents in its 37 residency programs. A total of 209 new residents, representing 64 U.S. and 24 international universities, begin this summer at programs in Birmingham, Huntsville, Selma, and Montgomery.

See full 2020 Match Day results and a video of the school's Instagram Match Day feed at go.uab.edu/matchday.

REWARDING EXCELLENCE

Sixteen outstanding faculty members have been named recipients of the 2020 Dean's Excellence Awards, an honor recognizing exceptional contributions made by School of Medicine faculty in teaching, research, service, mentorship, and diversity.

"I'm delighted to announce the winners of the 2020 Dean's Excellence Awards," said Selwyn M. Vickers, M.D., FACS, senior vice president for Medicine and dean of the School of Medicine. "The Dean's Excellence awards recognize and honor exceptional work done by our faculty across these important areas. Every individual who was selected has had an immense impact on the UAB campus and our greater community. While I am disappointed we will not be able to honor them at an in-person event this year, I want them to know that we are all extremely proud of their hard work and dedication."

To see the full list of winners, visit go.uab.edu/DEA2020.



IMMUNOLOGY PROGRAM FIRST

UAB's Undergraduate Immunology Program (UIP), a collaboration between the School of Medicine (SOM) and the College of Arts and Sciences (CAS), is celebrating its first graduate: nursing student Peyton Blaylock, of Vestavia Hills, Alabama.

The UIP, which launched in 2017 and is sponsored by the Department of Biology (CAS) and the Department of Microbiology (SOM), offers an interdisciplinary

four-year curriculum. Students are required to get hands-on experience working in cutting-edge immunology research laboratories to ready themselves for careers in the health professions or research.

This major is designed to train the next generation of students who will hopefully lead the fight against the next pandemic, says Louis Justement, Ph.D., professor of microbiology

and co-director of the UIP. "Peyton is an outstanding example of the highly motivated students in the UIP who aspire to do great things at the next level," Justement says.

Blaylock works in the research lab of Shinichi Kano, M.D., Ph.D., studying the neurobiology of the brain. She is currently applying to physician assistant programs and, once accepted, will start in August 2021.

WELCOMING LEADERS



Andrew Edwards, M.D., has been named interim department chair for the Department of Emergency Medicine. He joined the department in 2003, where he has served as professor and vice chair for education.



Helen Krontiras, M.D., the Kirby I. Bland, M.D., Endowed Professor of Surgery, was named the director of the new UAB Division of Breast and Endocrine Surgery within the Department of Surgery.



Adrienne Lahti, M.D., holder of the F. Cleveland Kinney Endowed Chair in the Department of Psychiatry and Behavioral Neurobiology, was appointed interim chair of the department effective March 1.



Jayme Locke, M.D., MPH, the Mark H. Deierhoi, M.D., Endowed Professor, was named the director of the Division of Transplantation within the Department of Surgery. Locke is also the director of the UAB Comprehensive Transplant Institute and the surgical director of the Incompatible Kidney Transplant Program at UAB Hospital, among other roles.



Danielle Powell, M.D., MSPH, associate professor in the Department of Physical Medicine and Rehabilitation, became interim chair of the Department of Physical Medicine and Rehabilitation effective March 1.



Barry Sleckman, M.D., Ph.D., was named director of the O'Neal Comprehensive Cancer Center at UAB and holder of the Evalina B. Spencer Chair in Oncology. He previously served as the associate director of the Meyer Cancer Center at Weill Cornell Medicine joining UAB in January 2020.

Health Equity Scholars

Eleven rising second-year medical students have been selected for the fourth class of the UAB School of Medicine's Health Equity Scholars Program. Created in 2017, the program's goal is to develop physician leaders with the knowledge and skills to promote health equity for medically underserved communities. The 2020 Health Equity Scholars are:

- Akshay Aluri
- Ankit Bansal
- Madeline Farmer
- Paris Long
- Emily Ness
- Ricky Pigg
- Ansley Smoak
- Shefa Suhaila
- Natalie Wire
- Hannah Woodard
- Jocelyn York

"This was the most competitive group of applicants we've had for



the program to date," said Caroline Harada, M.D., assistant dean for Community-Engaged Scholarship. "Our Health Equity Scholars astound me with their passion for learning and their commitment to finding ways to advocate for vulnerable people."

The Health Equity Scholars Program helps students develop expertise in the social determinants of health and health disparities through five different components: service learning coursework, extracurricular service work, a scholarly project, a fourth-year teaching apprenticeship, and annual training retreats.



Third-year medical student Grace Kennedy has been selected for the Fulbright-Fogarty Fellowship in Public Health and plans to conduct

malaria research in Ghana. This marks a special achievement since she is the School of Medicine's first recipient of this partnership grant offered through the U.S. Department of State's Fulbright Program and the Fogarty International Center of the U.S. National Institutes of Health.

Integrated Residency Scholarship

Sawyer Mullen, a 2020 School of Medicine graduate, was awarded the first Integrated Internal Medicine Residency Scholarship at the Huntsville Regional Medical Campus (HRMC). He begins the Huntsville Internal Medicine Residency Program in July.

Huntsville's new Integrated Internal Medicine Residency Program combines the requirements of the fourth year of medical school with intern experiences, giving students more specialized, career-driven opportunities in their fourth year. It is modeled after the successful Integrated Family Medicine Residency Program in Huntsville, created in the 2017-2018 academic year.

Mullen, from Curry, Alabama, was awarded a \$20,000 scholarship to defray the cost of his fourth year. Huntsville Hospital made the inaugural gift to support the scholarship.

"We are thrilled to have Sawyer staying in Huntsville for the next phase of his medical education," says Roger Smalligan, M.D., MPH, HRMC dean. "I am also thankful for our campus' partnership with Huntsville Hospital and for their support of this innovative program. I look forward to growing this program over the next few years."

To support UAB medical scholarships, contact Jessica Brooks Lane at 205-834-2581 or jb lane@uab.edu.

Medical Students Give Back

This spring, medical students volunteered during the pandemic in a variety of ways. Students in Birmingham shared blood test results over the phone with people who had tested negative for coronavirus, and staffed UAB's COVID-19 screening call center.

Montgomery Regional Medical Campus students volunteered with the Montgomery Area Food Bank, packing boxes of food for distribution to families and the elderly. In one day, they served 104 families at a drive-through pick-up.

Students at the Huntsville Regional Medical Campus volunteered at the Alabama Department of Public Health, assisting with contacting those who have recovered from COVID-19 to gather information on the clinical course and treatment provided.

In addition, the Class of 2020 gave back as a group. Traditionally, the graduating class collects money to pay for socials and other events around Match Day. This year, the class decided to donate that money to Christ Health Center in Birmingham to help build a temporary clinic for people with respiratory illnesses or fevers.

300+

medical alumni and guests attended the 47th

Annual Medical Alumni Weekend February 7-8.

Alumni Weekend 2021 is February 26-27.

AWARDS & ACCOLADES



Gattadahalli Anantharamaiah, Ph.D., professor emeritus in the Division of Gerontology, Geriatrics, and Palliative Care, was elected a 2019 National Academy of Inventors fellow.

S. Louis Bridges Jr., M.D., Ph.D., the Anna Lois Waters Endowed Professor of Medicine and director of the Division of Clinical Immunology and Rheumatology, was appointed incoming president of the Rheumatology Research Foundation.

Cheri Canon, M.D., professor and Witten-Stanley Endowed Chair in the Department of Radiology, was appointed president-elect of the Society of Chairs of Academic Radiology Departments.

David Chaplin, M.D., Ph.D., professor in the Department of Microbiology, was elected a distinguished fellow by the American Association of Immunologists.

Herb Chen, M.D., surgeon-in-chief and the Fay Fletcher Kerner Chair of Surgery in the Department of Surgery, was selected as the editor-in-chief of the American Journal of Surgery.

Jake Chen, Ph.D., the associate director of the UAB Informatics Institute, has been elected a fellow of the American College of Medical Informatics.

James Cimino, M.D., director of the UAB Informatics Institute, was appointed to the Alabama Commission on Artificial Intelligence and Associated Technologies, which advises state leaders on the AI industry and recommends policy to promote AI technology in Alabama.

Michelle Gray, Ph.D., associate professor in the Department of Neurology, and **Farah Lubin, Ph.D.**, associate professor in the Department of Neurobiology, were named to a list of 100 inspiring black scientists in America by Cross Talk, the official blog of Cell Press, a leading publisher of cutting-edge biomedical and physical science research and reviews.

Adrienne Lahti, M.D., professor and holder of the F. Cleveland Kinney Endowed Chair in the Department of Psychiatry and Behavioral Neurobiology, and **Lucas Pozzo-Miller, Ph.D.**, professor in the Department of Neurobiology, were selected as the co-directors of the UAB Comprehensive Neuroscience Center.

George Netto, M.D., professor and the Robert and Ruth Anderson Endowed Chair of the Department of Pathology, became editor-in-chief of Modern Pathology, the scientific journal of the United States and Canadian Academy of Pathology, effective January 1, 2020.

Michael Saag, M.D., a professor in the Division of Infectious Diseases, holder of the Jim Straley Endowed Chair in AIDS Research, and associate dean for Global Health in the School of Medicine, has been named editor of AIDS magazine.

Lisa Schwiebert, Ph.D., professor in the Department of Cell, Developmental and Integrative Biology and senior associate dean for Graduate and Postdoctoral Affairs, received the 2020 Distinguished Service Award from the National Postdoctoral Association.

Steven Theiss, M.D., professor and the John D. Sherrill Chair in the Department of Orthopaedic Surgery, was appointed to the North American Spine Society International Education Commission.

Lisa Willett, M.D., professor and holder of the Dr. Tinsley R. Harrison Endowed Chair in Medical Resident Education in the Department of Medicine, won the 2020 Parker J. Palmer Courage to Teach Award from the Accreditation Council for Graduate Medical Education.

Mike Wyss, Ph.D., professor in the Department of Cell, Developmental and Integrative Biology, received the 2019 Presidential Excellence Awards in Science, Mathematics and Engineering for Mentoring.



Lift Off

Meet surgery resident and record-holding powerlifter Samantha Baker

By Emma Harchanko

This past spring, UAB Surgery resident Samantha Baker, M.D., completed her third research year as a Birmingham VA Quality Scholar in the lab of Melanie Morris, M.D. She will return to clinical duties this fall.

In addition to these achievements, Baker is a record-holding powerlifter. “I was a collegiate powerlifter for LSU (2007-2011) and a Team USA Junior World Powerlifting competitor (2007, 2009, 2010),” Baker says. “Powerlifting is three lifts—squat, bench, and deadlift—and each competitor gets three attempts to make a successful lift. The highest successful lift from each of the three categories are added together, and the highest total in each weight class wins.”

She says she transitioned to Olympic lifting and training about two years ago. “Weightlifting has two lifts, the snatch and the

clean and jerk, and again, competitors get three attempts to get a successful lift. Then, the highest successful lift for snatch is added to the highest successful lift for clean and jerk. The highest total wins for each weight class.”

While weightlifting may seem like a solitary pursuit, Baker says it really is a team sport. “I like powerlifting or weightlifting because even though it is an individual effort, the training is really a team sport. We lift each other up, hold each other accountable, coach each other, and celebrate with each other when we get a new personal record. On an individual level, I enjoy practicing a skill and trying to perfect a technique, knowing that no matter how good I am at something there is always a part of it to improve on.”



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