

# HEEDING THE CALL

Making a Commitment to Dismantle Racism

# Duke Med

ALUMNI NEWS

Fall 2020



 Duke University  
School of Medicine

# ADAPT AND INNOVATE

Meets the  
challenge of the  
pandemic by  
crafting new ways  
to educate

## MESSAGE FROM THE DEAN

DEAR FRIENDS,

I hope this message finds you and your family safe and well. At the School of Medicine, we are having a fall semester unlike any other. More than 600 new students are embarking on their education in the health professions and biomedical sciences in the midst of a relentless pandemic that continues to disrupt our lives and those of people around the world.

Beginning last spring and continuing through the summer and fall, the School of Medicine, along with Duke University and the Duke University Health System, developed and implemented scientifically grounded plans with the input of an exceptional team of experts from across campus to allow our students to continue to learn, our faculty to teach, our clinical teams to provide care, and our physician-scientists to conduct research, all while working to reduce the spread of COVID-19 at Duke and in our communities.



We have implemented a comprehensive testing and screening plan. We have designed virtual learning protocols for those activities that can be done remotely, and in-person learning for those activities that require physical presence. Many staff continue to work from home, while our researchers and health care providers on campus are adhering to strict safety protocols. We all share the responsibility to do our part to ensure the health and safety of those on our campus and in our community.

At the same time, as one of the nation's premier academic health care institutions, it is our responsibility to respond to the greatest health care challenges of our time. Our teams from across the school and campus are working tirelessly to develop and test new therapies to treat patients with COVID-19 through innovative clinical trials, and to develop a vaccine as well as countermeasures that will fight the virus and provide both long-term and short-term protection.

I am proud of our faculty, staff, and students who have risen to this challenge with remarkable resilience, innova-

tion, and an inspiring spirit of collaboration. In this issue of *DukeMed Alumni News*, you will learn how we have adapted our educational programs and procedures to meet the realities of COVID-19 and still give our students and trainees the learning experiences they need to become great health care professionals (See page 4.)

You will also read about the School of Medicine's Moments to Movement initiative. (See page 12.) Launched this summer in alignment with the entire university and Duke Health, the School of Medicine has pledged to make sustainable, fundamental changes to mitigate systemic racism and create a diverse, inclusive, and equitable school and nation.

The COVID-19 crisis has changed how we do some of the things we do, but it has not altered in the slightest—in fact, it has only strengthened—our commitment to carry out our essential missions of research, education, patient care, and community engagement.

We could not do that work without our loyal alumni and friends. In this issue of *DukeMed Alumni News*, you will find highlights about three donors who have given generously to support one of our most important areas: endowed scholarships. Scholarships open the door to a world-class medical education for students who might otherwise find that path closed.

On behalf of everyone at the School of Medicine, thank you for your many expressions of support and concern, and for your offers of help. Never has the partnership of our dedicated alumni, family, and friends been more important, and I am grateful for everything you do to make Duke University School of Medicine the extraordinary place it is for learning, research, and care. Please be safe and take care.

With warm wishes.

**Mary E. Klotman, BS'76, MD'80, HS'80-'83, HS'83-'85**  
Dean, Duke University School of Medicine,  
Vice Chancellor for Health Affairs, Duke University

### **DukeMed Alumni News**

is published by the Duke Medical Alumni Association.

#### EDITOR

Dave Hart

#### ASSISTANT EDITOR & ART DIRECTOR

David Pickel

#### CONTRIBUTING WRITERS

Rhiannon Giles, Bernadette Gillis,  
Dave Hart

#### PHOTOGRAPHY

Chris Hildreth, Shawn Rocco, Jim  
Rogalski, Brian Smith, Les Todd

Produced by

Duke Health Development and  
Alumni Affairs.

Copyright Duke University, 2020  
20-0121

*DukeMed Alumni News* is sent two times a year to alumni, donors, and friends of Duke University School of Medicine. *DukeMed Alumni News* is currently delivered through online platforms.

Issues are available online at [medalumni.duke.edu](http://medalumni.duke.edu).

Please contact us at:

*DukeMed Alumni News*  
300 W. Morgan Street, Suite 1200  
Durham, NC 27701  
919-385-3100

[dukemed@dm.duke.edu](mailto:dukemed@dm.duke.edu)

**Your comments, ideas, and letters to the editor are welcome.**

In *DukeMed Alumni News*, the names of current students and alumni of Duke University and its constituent schools and degree programs are printed in bold along with their class years and degrees. **HS** (House Staff) signifies residencies, fellowships, or internships.

#### **Mary E. Klotman, MD**

Dean, Duke University School of Medicine,  
Vice Chancellor for Health Affairs, Duke University  
R.J. Reynolds Professor of Medicine  
Professor of Pathology  
Professor of Molecular Genetics and Microbiology  
Member, Duke Human Vaccine Institute

#### **Scott Gibson, MBA**

Executive Vice Dean for Administration

#### **L. Ebony Boulware, MD, MPH**

Vice Dean for Translational Sciences

#### **Ann Brown, MD, MHS**

Vice Dean for Faculty

#### **Edward G. Buckley, BSE, MD**

Vice Dean for Education

#### **Colin Duckett, PhD**

Vice Dean for Basic Science

#### **Adrian Hernandez, MD, MHS**

Vice Dean and Executive Director,  
Duke Clinical Research Institute

#### **Allan Kirk, MD, PhD**

Vice Dean for the Science  
of Surgical Disciplines

#### **Susanna Naggie, MD, MHS**

Vice Dean for Clinical Research

#### **Billy Newton**

Vice Dean for Finance

#### **Theodore N. Pappas, MD**

Vice Dean for Medical Affairs

#### **Michael Pencina, PhD**

Vice Dean for Data Science and  
Information Technology

#### **Geeta Swamy, MD**

Associate Vice President for Research  
and Vice Dean for Scientific Integrity

#### **Jill Boy**

Associate Dean and  
Chief Communications Officer

#### **Stacy Palmer**

Associate Dean for Strategic  
Planning and Chief of Staff

#### **Judy Seidenstein**

Associate Dean and  
Chief Diversity Officer

## CONTENTS



PAGE 4



PAGE 2



PAGE 12

### COVID BRIEFS

- 2 DHVI TO TEST MONOCLONAL ANTIBODY PREVENTATIVE
- 2 STUDY CONFIRMS EFFECTIVENESS OF MASKS
- 3 1,000TH PATIENT GOES HOME

### NEWS BRIEFS

- 26 VIRTUAL TOUR EXPLORES DUKE HEALTH FACILITIES

### RESEARCH BRIEFS

- 30 RESEARCHERS IDENTIFY POTENT PAIN-SUPPRESSION CENTER IN THE BRAIN
- 31 NEW MOLECULE EASES DRUG CRAVINGS WITH FEWER SIDE EFFECTS

### ET CETERA

- 32 PEOPLE NEWS
- 34 OBITUARIES

### FEATURES

#### 4 ADAPT AND INNOVATE

Faculty, staff, and students craft whole new ways of teaching and learning in order to meet the challenge of providing a world-class medical education in the midst of a global pandemic

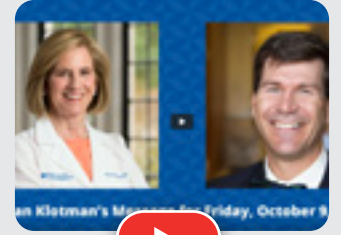
#### 12 HEEDING THE CALL

The School of Medicine launches a wide-ranging process aimed at dismantling structural racism within the school and in the community

### ALUMNI SPOTLIGHTS

- 22 'LIKE A TSUNAMI'
- 23 TURNING A TERRIFYING ORDEAL INTO AN OPPORTUNITY TO HELP
- 24 A LONG STRUGGLE

## VIDEO LINKS



### DEAN KLOTMAN:

Hear the Dean's latest message about the School of Medicine's response to COVID-19.

[bit.ly/DMAN-deansmessage](https://bit.ly/DMAN-deansmessage)



### IN THEIR OWN WORDS:

Students share what it's like learning to become health care professionals in a world shaped by COVID-19

[bit.ly/DukeMed](https://bit.ly/DukeMed)



### MOMENT TO A MOVEMENT:

Watch a recording of the "Turning a Moment into a Movement" event at

[bit.ly/3klpfKZ](https://bit.ly/3klpfKZ)



Duke researchers are working to develop an antibody that could confer short-term protection against COVID-19.

## DHVI TO TEST MONOCLONAL ANTIBODY PREVENTATIVE

The Duke Human Vaccine Institute Pandemic Prevention Program (DHVI-P3) has received an additional \$7.6 million in federal funding to manufacture and test in humans a neutralizing monoclonal antibody for the prevention of COVID-19.

The funding, from the U.S. Department of Defense, Defense Advanced Research Project Agency (DARPA), enables the Duke team to move forward with a Phase 1 study of highly potent antibodies isolated from COVID-19 patients who have recovered from the illness.

The DHVI-P3 program is led by Gregory D. Sempowski, PhD, in partnership with Duke clinical investigators **Emmanuel "Chip" Walter, MD, HS'90,**

and **Christopher Woods, MD'94, HS'94-'97, HS'99-'02,** and Duke antibody discovery experts **Barton F. Haynes, MD, HS'73-'75,** and **Kevin Saunders, PhD'10.**

The Duke team will manufacture and test the potent SARS-CoV-2 neutralizing antibody using an RNA-based delivery. RNA is the genetic material that instructs the body to make antibody proteins.

Manufacturing will begin in late 2020 in the DHVI clinical Good Manufacturing Practice facility run by Matthew Johnson, PhD. The Phase 1 clinical trial with healthy volunteers is on target to start in early 2021.

## Study confirms effectiveness of masks

Duke researchers interested in evaluating the effectiveness of various types of face coverings in preventing the spread of viruses crafted a simple, low-cost technique that provided visual proof that face masks are effective in reducing droplet emissions during normal wear.

Eric Westman, MD, an associate professor of medicine, teamed up with chemist and physicist Martin Fischer, PhD, director of Duke's Advanced Light Imaging and Spectroscopy facility, to test a variety of masks. Fischer created an apparatus consisting of a box, a laser, a lens, and a cell phone camera.

In a proof-of-concept study published online in the journal *Science Advances*, Fischer, Westman and colleagues confirmed that when people speak, small droplets get expelled, indicating that disease can be spread just by talking. They also found that some face coverings performed much better than others in blocking expelled particles.

The tests indicated that the best face coverings were N95 masks without valves. Surgical or polypropylene masks also performed well. Hand-made cotton face coverings provided good coverage, eliminating a substantial amount of the spray from normal speech. On the other hand, bandanas and neck fleeces such as balaclavas didn't block the droplets much at all.

Westman said more work is required to investigate variations in masks and methods of wearing them. Still, he said, the study confirmed that wearing a mask is a simple and easy way to reduce the spread of COVID-19.

## DUKE TO HELP COORDINATE GLOBAL INFECTIOUS DISEASE NETWORK

The Duke Human Vaccine Institute (DHVI) will join with RTI International, a nonprofit research institute, to serve as the coordinating center for a new global network of research centers to streamline and accelerate research response to emerging infectious disease outbreaks.

The RTI-Duke CREID Coordinating Center, awarded by the National Institute of Allergy and Infectious Diseases, will support network-wide activities for the Centers for Research in Emerging Infectious Diseases (CREID) network. The CREID network comprises 10 research centers in regions around the globe where emerging and re-emerging infectious disease outbreaks are likely to occur. Multidisciplinary teams of investigators will conduct pathogen/host surveillance; study pathogen transmission, pathogenesis, and immunologic responses in the host; and develop reagents and diagnostic assays for improved detection of important emerging pathogens and their vectors.

The coordinating center will support activities such as data management; outbreak research response; ensuring the quality of biospecimens, assays, and reagents; and a pilot research program for early-career investigators. The center



also can be leveraged and scaled to facilitate rapid research response activities during outbreaks.

The CREID Network will include sites in more than 30 countries in Africa, Asia, and Latin America and will conduct research on viruses including severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)—the virus responsible for COVID-19—as well as Middle East respiratory syndrome coronavirus (MERS-CoV), Ebola, Zika, West Nile, Dengue, and others.



## 1,000TH PATIENT GOES HOME

A Fayetteville man was discharged from **Duke University Hospital** on August 20 after spending 32 days in its dedicated Respiratory Care Unit—the 1,000th COVID-19 patient discharged from Duke University Health System hospitals since the pandemic first arrived in North Carolina on March 3.

Maury Turner, an Air Force veteran and associate pastor, was one of the first to be treated at the **Respiratory Care Unit**, which opened the day he arrived, July 13. The unit was established to facilitate the provision of critical care for patients with respiratory illness. See video, [bit.ly/34kR1ly](https://bit.ly/34kR1ly)

## AGGRESSIVE CONTROL MEASURES REDUCE IMPACT

Research by the Duke Global Health Institute (DGHI) indicates that only the most aggressive control measures, such as stay-at-home orders and mask mandates, have produced across-the-board reductions in both COVID-19 cases and deaths.

William Pan, PhD, associate professor of global environmental health, and a team of analysts examined data from all 3,142 U.S. counties and the District of Columbia, testing for relationships between the timing of control policies in place between January and May and the resulting number of COVID-19 cases and deaths during that time. Their findings, published online on *medrxiv*, provide some of the most complete evidence yet of what drove some communities' success in

beating back the virus.

The researchers categorized response policies into four tiers of increasing rigidity, with soft measures like emergency declarations at the bottom and stay-at-home orders at the top. Counties that adopted policies in the highest tier saw a 50% decline in new daily cases within an average of six days, and death rates declined by 15% for each day the measures were imposed.

The top tier was also the only one to produce declines in cases and deaths in every region of the country. The two lowest tiers failed to yield any significant decline in cases or deaths, and in many instances actually led to continued growth, albeit at slower rates.

Results were released prior to the completion of peer review in order to make the data accessible more quickly.



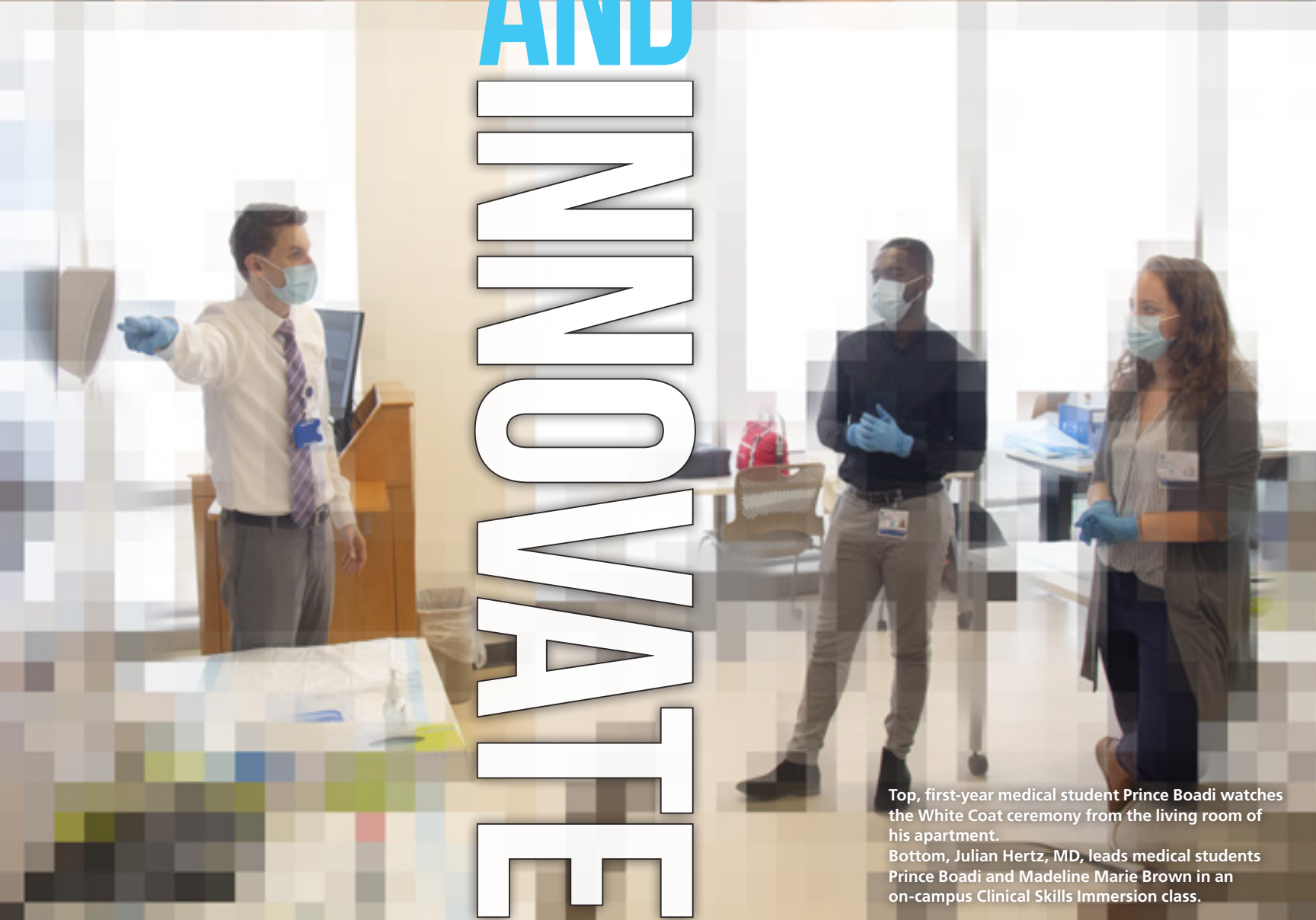
## Long-term study tracks pandemic

Duke's MURDOCK Study has launched a COVID-19 research project to follow the health of hundreds of North Carolina volunteers for several months. The study will also test a sub-group for COVID-19 infection and potential immunity to the novel coronavirus that causes the disease.

The MURDOCK Cabarrus County COVID-19 Prevalence and Immunity (C3PI) Study is a partnership between the Duke University School of Medicine and the North Carolina Department of Health and Human Services to understand the community prevalence of COVID-19 and to monitor the disease over time.

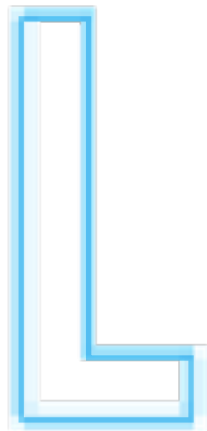
The study will follow the health and well-being of volunteers for at least six months and examine how the COVID-19 pandemic has affected them and their households.

# ADAPT AND INNOVATE



Top, first-year medical student Prince Boadi watches the White Coat ceremony from the living room of his apartment.  
Bottom, Julian Hertz, MD, leads medical students Prince Boadi and Madeline Marie Brown in an on-campus Clinical Skills Immersion class.

# The School of Medicine meets the challenge of the pandemic by crafting new ways to educate



Last spring, when **Prince Boadi** accepted an offer to attend Duke University School of Medicine starting in the fall of 2020, he knew the experience—leaving his family and friends in Chicago, learning his way around Durham, meeting new people, and taking on the rigors of medical school—would be different from anything else he'd ever done.

He just didn't expect it to be quite *this* different.

"I'm pretty sure nobody has ever started medical school quite like this," Boadi says of the first-year class. "Everybody is eager for things to get back to normal. But the faculty have been amazing, and we're all learning to adapt. Even with all the challenges, I know there are a thousand people who would love to be in my position. I'm just glad to be here."

Boadi and the other 600-plus new learners in the health professions and biomedical sciences have begun their education at Duke amid the worst global pandemic in a century. COVID-19 has affected almost every facet of life at the School of Medicine. The threat posed by the novel coronavirus has changed how students learn, how faculty teach, how scientists conduct research, and how clinicians care for patients.

The School of Medicine, along with the Duke University Health System and the university as a whole, has responded to the pandemic by rapidly reconfiguring a very large, complex institution to continue to carry out its core missions.

"Our faculty, staff, and students have responded superbly," says School of Medicine Dean **Mary E. Klotman, BS'76, MD'80, HS'80-'85**. "We talk about innovation a lot. This challenge has required us to innovate on a massive scale, and our faculty have been remarkably creative and resilient in creating ways to carry on our work under extremely challenging conditions."

Those changes range from new ways to deliver patient care to an expansive new multi-disciplinary course for students called "Responding to Pandemics: Past, Present, and Future," which **Alison Clay, MD, HS'02-'05**, and **Nancy Knudsen, MD, HS'92-'96**, created with astonishing rapidity over the span of just a few weeks in early March.

## A PROACTIVE PLAN

When the pandemic arrived in Durham in mid-semester last March, prompting the university to move all instruction online, close most

By Dave Hart

Photographs by  
Shawn Rocco



First-year medical student Maggie Min gets a COVID-19 test before the start of the semester.



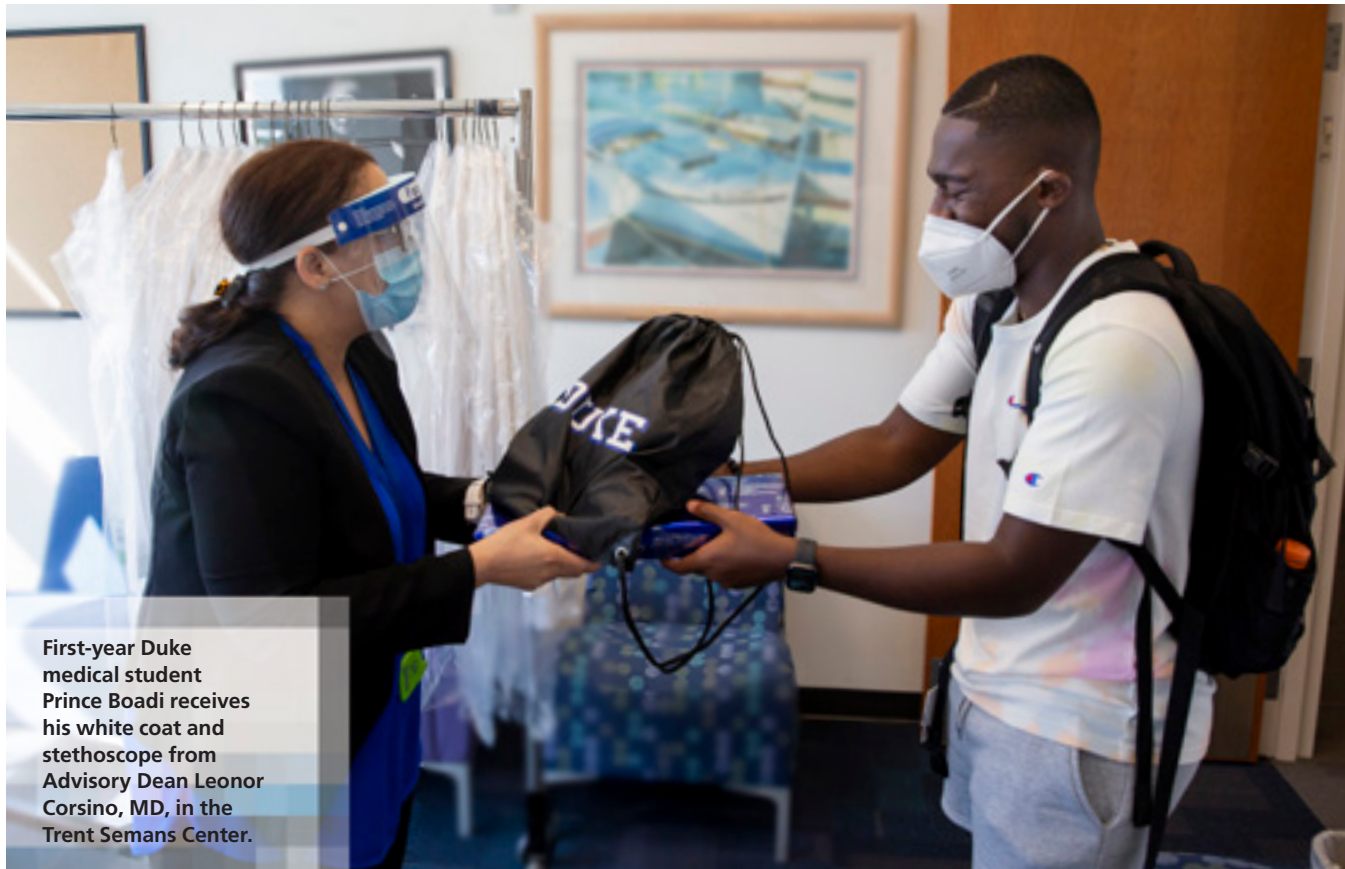
Fourth-year MSTP student Amy Petty, center, rounds with Richard Drew, PharmD, MS, and Madison Hicks at Duke University Hospital.



### IN THEIR OWN WORDS:

Medical students talk about Zoom classes and the other new ways of receiving their health care education.

[bit.ly/DukeMed](https://bit.ly/DukeMed)



First-year Duke medical student Prince Boadi receives his white coat and stethoscope from Advisor Dean Leonor Corsino, MD, in the Trent Semans Center.

research labs—except those focused on COVID-19—and restrict campus facilities, School of Medicine leadership scrambled to re-vamp the education and training programs. The summer break offered a bit of breathing room so that, in conjunction with Duke University and the Duke University Health System, they could assess, refine, and implement policies in preparation for the mass of students to return in August.

Medical school education leaders crafted a plan designed to allow students to gain the skills,

knowledge, and experience required to advance toward their degrees on schedule while taking all practicable measures to prevent and minimize the potential spread of COVID-19 within the Duke and Durham communities.

Mass COVID-19 testing of all incoming students, daily symptom monitoring for anyone going to campus, and widespread surveillance testing help quickly identify and isolate any cases of COVID-19 infection. Lectures, demonstrations, and projects are done via Zoom or other virtual platforms. Masks are required for

in-person activities, and for close contact work, face shields offer additional protection. Student lounges and other common areas are off-limits; students go to campus or clinics only for required activities. Groups are subdivided and widely spaced and scheduled.

“Everything we can do remotely, we do remotely,” says **Ed Buckley, BSE’72, MD’77, HS’77-’81**, vice dean for education. “For the things we can’t do remotely, we implement all appropriate precautions: we wear PPE and meet in smaller groups in bigger rooms for shorter



Glenda Holcomb, a second-year Doctor of Physical Therapy student, practices leg stretching with a fellow student during a pediatric physical therapy class under the instruction of Laura Case, PT, DPT, MS, center.



Medical students Kaia Miller and Maggie Min learn how to operate an ultrasound machine with radiologist Jonathan Martin, MD.



First-year medical students meet in a small groups, wear masks, and maintain social distancing during a Basic Life Support session in the Trent Semans Center for Health Education.

periods of time. We're not crowding 15 people into a room on rounds; with technology like video iPads, not everybody has to be in the room at the same time to get the learning experience."

#### LEARNING DESPITE LIMITATIONS

Thanks to these proactive measures, students are participating in most customary learning activities, albeit under obvious limitations. First-year students are watching lectures virtually, participating in team activities, and learning how to take medical histories and administer physical exams.

"At many medical schools, lectures are videotaped and posted online anyway," says **Maggie Min**, a first-year medical student. "Even before COVID, a lot of medical students watched lectures online. The first-year curriculum is largely lecture-based, so if there's ever a time to be stuck at home due to a pandemic, it's this year."

At the same time, COVID-19 has curtailed many of the usual activities—coffee shop meet-ups, football games, spontaneous conversations in the hall, and so on—that give students, especially new ones, the opportunity to get to know each other.

"That's been the hardest part," says Boadi. "Your first year is when you meet your classmates and really feel like you're at Duke. We're losing a lot of that. People are having Zoom get-togethers and small socially distant gatherings. It's limited, but it helps."

Clinical operations are back to near-normal volumes, and second-year students are rounding in smaller groups and gaining valuable experience participating in virtual "telehealth" visits with patients.

**"Everybody is eager for things to get back to normal. But the faculty have been amazing, and we're all learning to adapt. Even with all the challenges, I know there are a thousand people who would love to be in my position. I'm just glad to be here."**

PRINCE BOADI

Research labs are almost all open, and third-years are beginning their research projects with protective measures in place. Fourth-year students are doing their elective clinical rotations.

"A lot of medicine has moved to telehealth, but that can be difficult sometimes," says **Amy Petty**, a fourth-year student in the Medical Scientist Training Program. "It's hard to maintain six feet when you have to perform physical exams. We're often examining people from a couple of inches away. The medical school provides us with masks and face shields, and they're spreading us out among the clinics to keep providers, residents, and patients safe."

#### A NEW REALITY

The challenges and procedures vary by year and discipline. Ninety-four students are beginning their first year in the Doctor of Physical Therapy (DPT) program, the school's second-largest student cohort, after the MD program.

"People who want to train as physical therapists are typically people who seek personal connections and caregiving," says Tiffany Hilton, PT, PhD, assistant program director and director of curriculum for the DPT program. "The isolation and distancing have been difficult. Most of the first-years are in a new environment where they want to make connections, but that's hard right now. But we're doing everything we can to prioritize the student experience and give them the education they need to be excellent physical therapists."

The constraints required by the pandemic can be cumbersome, says **Glenda Holcomb**, a second-year DPT student.



Maggie Min walks past photos of previous classes of medical students after receiving her white coat.

“When we practice physical therapy skills, some techniques require the subject to lie face down on the table, and that’s a bit awkward when you’re wearing a face shield,” Holcomb says. “But we’re all in the same boat, so that helps. I have my ‘village,’ my little group of friends, and we’re able to get together and study safely, practice skills, and so on. That’s important. It’s easy for your mental health to go haywire in these times, and you have to find ways to connect.”

The Duke Physician Assistant (PA) program, one of the largest in the country with a total of 180 students and nearly 40 faculty, had to rapidly revise its education and clinical rotation offerings last spring to meet the new reality.

“The wonderful curriculum that we had nicely prepared to deliver is not a remote, virtual curriculum,” says Program Director Jacqueline S. Barnett, DHSc, MHS, PA-C. “We did not want to try to force a square into a circle, but we had to take that square curriculum and chisel it into a circle to make it fit into this new virtual paradigm.”

The PA faculty has crafted a curriculum with



Prince Boadi, left, tours the campus with fellow first-year student John Atwater.

# GME Trainees Respond to Pandemic

**W**hen the COVID-19 pandemic struck last spring and temporarily forced Duke's clinical operations to be limited to essential personnel only, the more than 1,000 residents and fellows in the Graduate Medical Education (GME) programs at Duke stayed put.

Residents and fellows are both learners and employees of the Duke University Health System, and, as essential workers, they remained at their posts. Many trainees helped care for COVID-19 patients when the numbers of positive cases at Duke's hospitals swelled. Others helped with testing and contact tracing and continued to see non-COVID-19 patients, either in person or virtually via suddenly in-demand telehealth services.

Just as it did across campus and the medical center, the pandemic presented the training programs with a host of challenges that forced Catherine Kuhn, MD, associate dean for graduate medical education, and her colleagues to rapidly revise procedures and operations.

When clinical volumes dropped, most GME programs had to adjust rotation schedules; a number of them organized their trainees into "platoons" that stayed together in groups and alternated schedules in order to continue to gain requisite clinical experience and to minimize the impact of infection. To preserve limited supplies of personal protective equipment in the initial stages, GME programs turned to alternatives such as live video platforms so trainees could see patients and accompany attending physicians on rounds virtually.

All GME rotations in other states and countries were suspended due to travel and safety restrictions, and program leaders quickly crafted opportunities within North Carolina to make up for some of those lost experiences. Recruiting and interviewing moved to virtual platforms, and some standardized tests were

postponed because national testing centers were closed.

"Our trainees are trying to complete training and achieve board eligibility, and of course a lot of them have been thinking, 'Will losing a month of a rotation cost me my board eligibility, or will I require extra training?'" Kuhn says. "The medical boards and accrediting agency have been flexible and helpful, and so far we're not seeing any major problems. Of course, everything depends on how the pandemic plays out in the long run."

Routines are returning to something closer to normal, Kuhn says. Clinical volumes are up, the COVID-19 patient population is down, and most trainees have gone back to relatively normal rotations. However, everyone feels the loss of opportunities for socialization and connectedness with their colleagues, both at work and at home.

"Most of what we've lost in patient experiences is recoverable fairly readily as long as we don't have another big surge or shutdown," Kuhn says. "We've learned a lot over these last six months. Some days it's hard to remember this, but the pandemic presents opportunities as well as challenges. We've discovered that we can do a lot of things that we thought were not possible."

— By Dave Hart



Catherine Kuhn

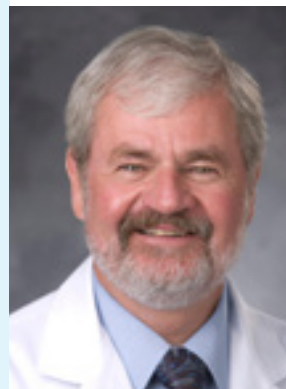
virtual electives and scrambled to schedule rotations for clinical-year students. Some PA students chose a rotation working with the Durham County Department of Public Health to conduct COVID-19 contact tracing. Tara Blackley, MBA, MPH, deputy public health director of the Durham County Department of Public Health, called them "an incredible asset." The incoming class of 92 PA students is doing mostly online instruction supplemented by small-group in-person activities. For in-person activities, students submit symptom monitoring and use appropriate PPE.

## HARD-WON LESSONS

Exactly what the world will look like whenever the pandemic eases, nobody really knows. But across the School of Medicine, faculty are looking at this year as an opportunity to draw valuable lessons that will shape health care and medical education long after the 2020 pandemic has faded.

One obvious example is the explosion in the use of live streaming platforms like Zoom as a way to teach, meet, and provide health care remotely. COVID-19 accelerated the evolution of telehealth in a way that is probably here to stay; telemedicine patient visits have risen from a pre-pandemic level of about 100 per month to over 1,000 per day.

"Telemedicine was moving slowly because there was no driving force pushing it," says Buckley. "The pandemic pushed it. It forced us to figure out the logistics and best practices. From here on out, I think you're going to see a lot more tele-



Ed Buckley

medicine and remote learning, virtual meetings, academic events, grand rounds, and so on."

COVID-19 has also—at a terrible cost—advanced the state of knowledge about infectious disease in ways that will resonate for years to come. Awful though it has been, this pandemic is helping prepare us for the next one.

"The next generation of physicians, having lived through this as students, will be better equipped for this kind of thing in the future," says Buckley. "And we know this is not the last we'll see of this kind of thing. We're much better prepared now than we were a year ago, and in a year we'll be better prepared than we are now."

One other lesson the pandemic has taught: the importance of connection and communication, especially at times of stress.

"I think the students have helped keep us sane," says the PA program's Barnett. "They have been so gracious and grateful for everything the program is doing to try to keep them on track. They have been just as worried about us as we have been about them."

The concern goes both ways. The faculty know this is hard on students. Just saying that makes a difference.

"I really appreciate how much the School of Medicine acknowledges that this is a challenging time to be in medical school," says Min. "They've told us repeatedly how much they appreciate that we decided to matriculate this year in spite of everything. Just having them say, 'We know it's difficult, but we're very glad you're here,' means a lot." ■

Rhiannon Giles contributed to this story



“We are grateful to Duke for everything it has done for our children and for bringing us to such a wonderful community.”

# In Their Children’s Footsteps

Neither Anna Lee nor her husband, Alex Chang, attended Duke, and neither has a background in medicine; they are, they say, “computer people” who both made their careers at IBM. But they have two very important connections to the School of Medicine: their children, **Leslie Chang, MD’18**, and **Jonathan Chang, MD’19**.

Leslie and Jonathan, born 21 months apart, attended the same schools all the way from kindergarten through their undergraduate degrees at the University of Texas-Austin and ultimately to medical school at Duke. They’re now both doing their residencies in Boston, one at Massa-

chusetts General and the other at Brigham and Women’s Hospital.

“Duke gave our children a great education and a great experience,” says Lee. “And we just fell in love with Duke and Durham.”

So much so that they’ve moved here after many years living in Austin, Texas. They are active members of the Davison Club, and in 2018 they established an endowed scholarship fund at the School of Medicine.

“We are grateful to Duke for everything it has done for our children and for bringing us to such a wonderful community,” says Chang. “We wanted to do something to help other people have the same opportunity.”

Gifts for medical education that help prepare the next generation of great physician leaders are among the most meaningful ways you can support the Duke University School of Medicine. Please consider making a gift online at [gifts.duke.edu/dmaa](https://gifts.duke.edu/dmaa).

To learn more about how to support the School of Medicine, please contact Sarah Nicholson, assistant vice president, at [sarah.nicholson@duke.edu](mailto:sarah.nicholson@duke.edu).



# heeding the call

---

The School of Medicine  
Makes a Commitment  
to Dismantle Racism

---

By Bernadette Gillis / Portraits by Chris Hildreth



**“Simply put, many minority students make the arduous effort to study, advocate for others, grieve the racial injustices of this world, mentor the next generation, and heal, simultaneously.”**

**– Kirsten Simmons  
fourth-year  
medical student**

say  
their

names.

GEORGE  
FLOYD

AHMAUD  
ARBERY

BREONNA  
TAYLOR

RAYSHARD  
BROOKS

---

---

That's the call made by many in reference to the numerous Black people who have been killed by police or civilian vigilantes in this country. It's a call that some say represents the long-overdue need to address systemic racism in the U.S. And it's a call that many students, faculty, and staff say must include Duke University School of Medicine.

Spurred by the killings of George Floyd, Ahmaud Arbery, Breonna Taylor, Rayshard Brooks, and others, the School of Medicine, along with other schools across Duke and throughout the country, has made a commitment to heed the call to eliminate racism and take a stand against racial injustice. Further driving that commitment is the COVID-19 pandemic, which has disproportionately affected racial and ethnic minority communities. Both structural racism and the pandemic have been deemed public health crises.

Beginning with the School of Medicine's "Turning a Moment into a Movement: Dismantling Racism" event hosted in June by Dean **Mary E. Klotman, BS'76, MD'80, HS'80-'85**, the summer of 2020 was filled with events like Duke Health's Walk for Solidarity (part of the national "White Coats for Black Lives" movement), panel discussions, and listening sessions with often uncomfortable but meaningful conversations that Klotman and other leaders say they plan to continue for a long time and hope will lead to change.

"We have only begun the process," Klotman says. "It will take time to address this deep-rooted, complex problem."

#### MOVING FROM A MOMENT

Every year, Klotman delivers a State of the School address that typically includes highlights of the past academic year and plans for the coming one. This year, George Floyd's death on May 25 thrust racism and racial injustice into the forefront of conversations and triggered worldwide protests. The events prompted Klotman to focus the State of the School solely on





JARAD LAZARIUS

**Dean Mary E. Klotman speaks at the Duke Health Walk for Solidarity earlier this year.**

race in a virtual event that featured frank talk about the realities and challenges of racial discrimination.

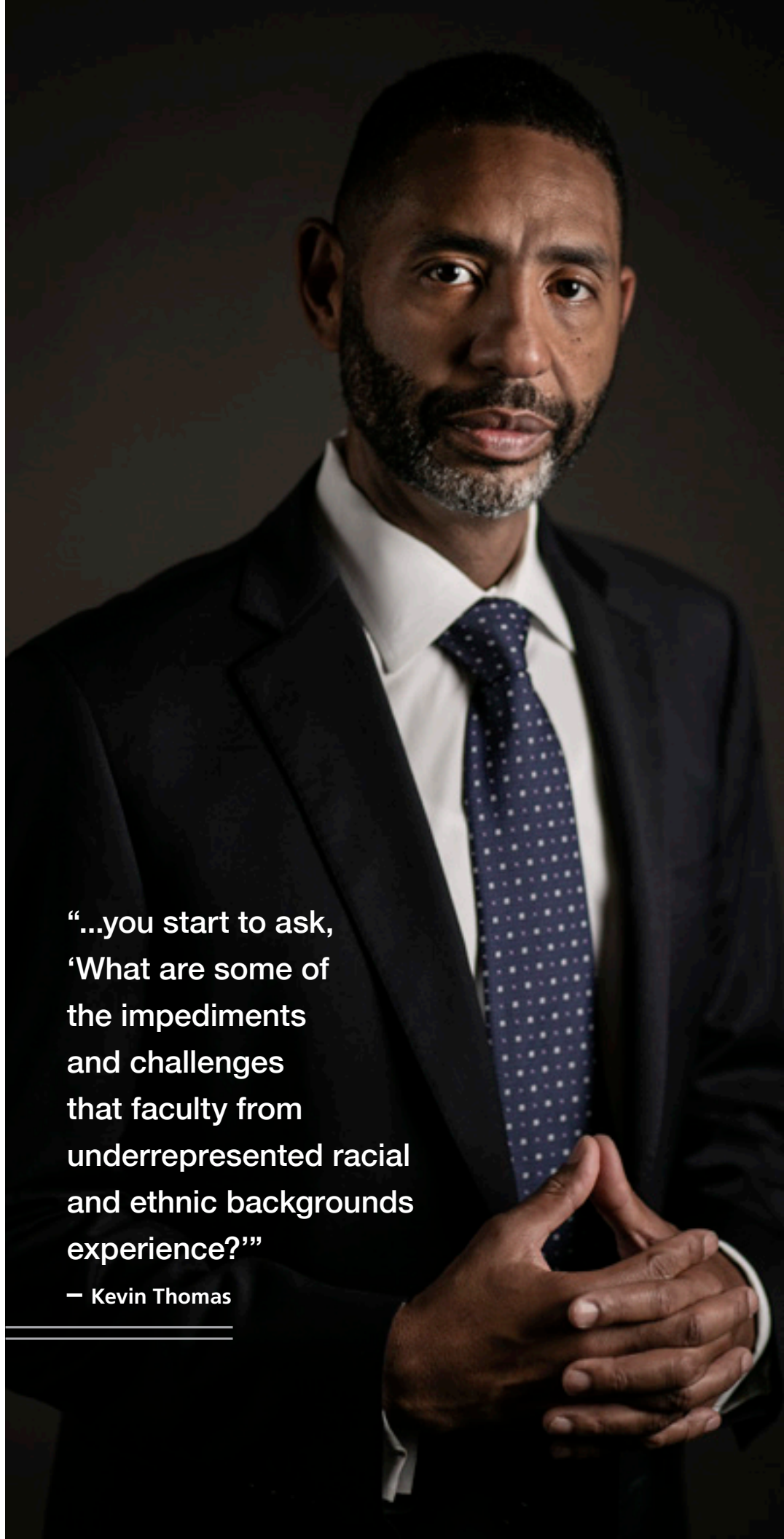
“I can think of nothing more important to talk about at this moment than our need to acknowledge and to take the essential steps to dismantle any structural racism within our institution,” she said during the event. “When we do that, we can become powerful, credible champions of change outside the walls of Duke.”

The event featured a panel made up of faculty members and one student who shared their personal stories of racism and offered their thoughts on how the School of Medicine can address systemic racism and health disparities.

Even before the “Turning a Moment into a Movement” event came about, students in the medical, physical therapy, physician assistant, and graduate programs voiced their concerns and called for change. The conversations triggered by the students helped inform the content of the event.

In June, students from the Duke chapter of the Student National Medical Association (SNMA) presented the dean with a letter including a list of recommendations to bring about equity in the school. Members of the student-run organization, which focuses on supporting minority medical students, expressed disappointment in the school’s delayed response in addressing police violence and affirming support of Black students. The letter also included seven pages of student narratives, which anonymously shared their painful experiences with racism, ongoing grief, and sense of isolation at Duke.

Students described situations in which their intelli-




**“...you start to ask, ‘What are some of the impediments and challenges that faculty from underrepresented racial and ethnic backgrounds experience?’”**

**— Kevin Thomas**

---

---



**“I think what employees want is to know that everything is equitable. That comes up a lot. They feel there’s not equity across the board when it comes to a lot of things: positions, salaries, schedules.”**

— Coral May

gence was questioned due to the color of their skin, or when they were subjected to racist remarks by patients that providers failed to address.

“That letter and those narratives serve as the truest reflection and mirror of where Duke as an institution rests right now,” says Kirsten Simmons, a fourth-year medical student and former SNMA co-president. “They illustrate the unique yet unfortunate challenges that minority medical students experience. Simply put, many minority students make the arduous effort to study, advocate for others, grieve the racial injustices of this world, mentor the next generation, and heal, simultaneously.”

#### STRATEGIC PLANS

Shortly after the June event, the school officially launched a strategic planning process with the goal of dismantling racism in the school and surrounding communities and addressing the associated inequities and injustices.

As a part of the process, the school formed four steering committees that are working to identify key issues and opportunities. Made up of two cochairs and 10 to 15 members, each committee represents one of the school’s main constituencies: health pro-



Hundreds of faculty and staff march in the Duke Health Walk for Solidarity, part of the national “White Coats for Black Lives” movement, on June 10, 2020.

fessions students, graduate students and postdocs, faculty, and staff. There is also an oversight committee of approximately 20 representatives who will help integrate all of the committees' findings, prioritize recommendations, and address any gaps. Dozens of other individuals within the School of Medicine have also been involved through subcommittee participation, surveys, focus groups, and interviews.

The committee cochairs and others involved in the strategic planning process are quick to point out that while they are energized and enthusiastic about coming up with ideas and recommendations, the work will take time, and there will be no overnight solutions.

"It's not just a pen-and-paper thought exercise," says Judy Seidenstein, the school's associate dean and chief diversity officer. "It's not a situation where you fill out a template and get this done by said deadline. It is personal, it is heartfelt, it is thoughtful, and it is deliberate."

She adds that the committees are taking this opportunity to "engage all the key people whose voices have long been unheard, have been silenced, and have been on mute."

"I think what employees want is to know that everything is equitable," says Coral May, cochair of the Staff Steering Committee and director of the School of Medicine's Human Resources Service Center. "That comes up a lot. They feel there's not equity across the board when it comes to a lot of things: positions, salaries, schedules."

"As staff members at Duke, we want our voices heard and to know that we have a say," adds Betsy Hames, associate dean and chief human resources officer for the School of Medicine, who also serves as cochair of the Staff Steering Committee. "We're fortunate to work at a university like Duke, where most people are really open to the ideas of others. The time just seems right for this, while there's a lot of momentum."

May and Hames are hopeful that in addition to offering staff the opportunity to have their voices heard, their work will also lead to change. Their committee is focused on a number of issues, including training and recruitment. All of the committees are reviewing those issues along with a number of others, including the curriculum, mentorship, retention, promotion, representation, and diversity.

#### A DEEPER DIVE INTO DIVERSITY

**Kevin Thomas, MD, HS'99-'07**, who is cochair of the Faculty Steering Committee and assistant dean for underrepresented faculty, says the work of the four committees is a daunting task. A major part of their work is the collection and analysis of data. The committees are reviewing data from institutional surveys, focus groups, exit interviews, and testimonials captured from faculty and students to inform



"I think there is obviously a late but better-late-than-never recognition that now," says Judy Seidenstein.



"We're fortunate to work at a university like Duke, where most people are really open to the ideas of others. The time just seems right for this, while there's a lot of momentum," says Betsy Hames.

recommendations for school transformation.

The Faculty Steering Committee has gathered race and ethnicity data on faculty representation, promotion, and attrition. The committee has also looked at data from previous focus groups conducted in 2017 and exit interviews from racial and ethnic minority faculty who have left Duke since 2016. Additionally, they asked faculty to share personal stories to help the committee better understand the challenges that exist.

“We’re trying to understand the data at a fundamental level,” says Thomas, who is also an associate professor of medicine. “Once you have that background, then you start to ask, ‘What are some of the impediments and challenges that faculty from underrepresented racial and ethnic backgrounds experience?’”

In 2018, the School of Medicine conducted the Association of American Medical Colleges (AAMC) Diversity Engagement Survey, which assessed perceptions of inclusion and engagement among faculty, staff, and students. The survey provides a range of insights into the inclusivity of the environment as well as diversity across the school.

One concern is low diversity among faculty and school leaders. Recent figures on the composition of School of Medicine regular-rank faculty reveal that currently 4.3 percent are Black/African American and 3.6 percent identify as Hispanic/Latino. Klotman says this low diversity speaks to a dearth of mentors, role models, and thought leaders from these identity and demographic groups. “We need to examine why we have not had more success, examine the root cause, and then address how we change going forward,” she says.

Though the planning process has just begun, the committees have been empowered to make a few decisions that the school can act upon now. One such decision was to pause the nomination process for Duke’s chapter of the Alpha Omega Alpha Medical Honor Society until an appointed committee can agree on how to move forward with an equitable selection process. Members of the SNMA and other students have questioned why the society isn’t more diverse at Duke.

On September 1, the School of Medicine, along with other schools at Duke, submitted an

initial report summarizing actions to date in the planning process to Duke University President Vincent Price. This summer, President Price requested those reports as part of the university’s sweeping commitment to anti-racism and social justice. Dean Klotman and committee cochairs from the School of Medicine emphasize that the work is emotional and complex, and they plan to take the time necessary to come up with well-considered solutions for lasting change.

#### AN IMPACT THAT LASTS

The cochairs admit that this type of work isn’t new. The school has made efforts to advance racial equity and inclusion in years past, from participating in programs such as the Teaching for Equity Fellowship to making the Cultural Determinants of Health and Health Disparities course a requirement for first- and second-year medical students. But the groundswell of energy and attention sparked by the killings of Floyd, Arbery, Taylor, and other Black Americans provides an impetus to build on earlier efforts and formu-

**“Fostering an inclusive environment and appointing leaders who have different ideas and different life experiences will enrich the culture and elevate things that we do well.”**

**— Kevin Thomas**

late crucial next steps.

“I think there is obviously a late but better-late-than-never recognition now,” says Seidenstein, who has been working in the diversity and inclusion field for more than 25 years. “For a long time, many of us—especially folks who are majority group—have had the privilege of swimming in water as fish, and fish don’t see the water that they’re swimming in until you take them out. Assumptions were that the ‘water’ was the same for everyone. Now, it’s time for us to reexamine.”

For this work to have a lasting impact, the steering committees have made it a priority to focus on sustainability. Thomas says accountability of leadership is one way to make sure any work the School of Medicine does is long-lasting. He says financial investment is critical as well.

“Whether it’s endowments or philanthropy specifically dedicated to issues around dismantling racism, equity, promoting health equity, and diversity and inclusion, unless we establish the financial stream that will continue to provide long-term inputs into this, then it won’t sustain,” Thomas says.

Ultimately, the aim of the school’s efforts is to create a more diverse, inclusive, and just institution for all and to better prepare current and future doctors and medical leaders to serve diverse communities.

“Having clinicians who represent the perspectives of the patients that we take care of is critical to the mission,” says Thomas. “Having researchers who are from different racial and ethnic backgrounds focused on health disparities research brings an element to our research portfolio that could be expanded with opportunities to innovate and lead. Fostering an inclusive environment and appointing leaders who have different ideas and different life experiences will enrich the culture and elevate things that we do well.”

## Taking the Lead

### Oversight Committee

Twenty School of Medicine representatives to help integrate the committee findings, prioritize recommendations, and address any gaps

Four steering committees have been charged with guiding the School of Medicine’s efforts. The committees and their cochairs are:

### Health Professions Students Steering Committee

Cochairs Nancy Knudsen, MD, and Kenyon Railey, MD  
+ 10-15 members

### Graduate Students and Postdoc Steering Committee

Cochairs Johnna Frierson, PhD, and Laine Thomas, PhD  
+ 10-15 members

### Faculty Steering Committee

Cochairs Nadine Barrett, PhD, and Kevin Thomas, MD  
+ 10-15 members

### Staff Steering Committee

Cochairs Betsy Hames, JM, and Coral May  
+ 10-15 members

# a seat at the table

---

---

IN HIS NEARLY NINE YEARS WORKING at Duke, Lowell Tyler says there have been countless times when he's been the only Black person or Black man in the room. It can be a bit of a challenge, and even though it's a situation he has gotten accustomed to, he says it's one that can—and should—change.

"The notion that there are not talented, capable, African Americans that can excel, I don't believe that," says Lowell, division administrator in the Department of Surgery. "I think there are talented, capable people out there. So, when we're not in the room, it raises the question, 'Why is that?'"

There are no easy answers. But Tyler hopes his time serving on the Dismantling Racism Staff Steering Committee will make a difference, not just for himself but for the good of the school as a whole.

"I think we have an opportunity to make some tangible improvements that will enhance opportunities for all people and make it more equitable," Tyler says. "And, hopefully, we'll build not only a staff and a workforce that reflects our community, but also leadership that reflects it."

In his current position, Lowell works with division chiefs and others in his department on budgeting, financial management, and strategic planning. He says he has noticed

that in some divisions there are no Black faculty members.

"I will say that it is something that is on the minds of the division chiefs and the department chairs," Tyler says. "As we continue and renew our efforts, there are opportunities to meet the moment, and to make sure that our applicant pools are as diverse as possible. I think we do need to take the time to take a step back and ask, 'Are there things that we are missing?'"

Tyler acknowledges that the work that he and his fellow committee members are doing isn't new, but in some ways, he says, it feels different this time around. He says the conversations that are occurring at the school now around race are more upfront and widespread. "We know the conversations are important steps," he says.

The committee members aim to be intentional about

their work and are looking closely at ways to find solutions that are long-lasting. Tyler says part of that is making sure everyone, particularly leadership, follows through on their promises.

"It isn't something where you flip a switch and it happens," he says. "We have to hold each other accountable. At all levels, leaders must be accountable for creating that culture of inclusivity."

Tyler is encouraged by the attention the school's leaders are giving to addressing inequalities and by the work that the steering committees are putting forth to make change.

"I think there is a moment for reflection and really examining what we can do better," he says. "Then there's a phase where we actually have to do the work. I think now we're at a point where we need to do the work."

*Lowell Tyler, MBA, is division administrator in the Department of Surgery.*

**"I think we have an opportunity to make some tangible improvements that will enhance opportunities for all people and make it more equitable."**

— Lowell Tyler

# will you put the hat on?

## Activity Across Campus

In addition to the “Turning a Moment into a Movement” event, a number of events on racial equity have been held around campus in recent months.

During the Duke Health Walk for Solidarity, Duke University President Vincent E. Price; Chancellor for Health Affairs A. Eugene Washington, MD, MPH; Dean **Mary E. Klotman, BS’76, MD’80, HS’80-’85**; and hundreds of Duke Health faculty and staff marched across the medical campus in support of racial justice and equality. Recently, Duke Health launched “Moments to Movement,” a collective pledge to right the injustices of systemic racism.

A number of School of Medicine departments and divisions have held their own events in support of the anti-racism movement, and many in the school participated in the national grassroots efforts called *#ShutDownAcademia* and *#ShutDownSTEM*.

In mid-June, Duke University held a day-long, campus-wide virtual symposium, “Living While Black,” which addressed COVID-19 and human rights abuses and featured Black faculty, staff, and students’ personal stories of racism and discrimination. The event led the university to add racial equity sessions to its student orientation program this year.

A PAPER HAT MADE BY A FIVE-YEAR-OLD, especially one that doesn’t quite look like a hat at first glance, may not appear to have anything to do with racism. But for Kenyon Railey, MD, and those listening to his presentation during the Duke University School of Medicine’s “Turning a Moment into a Movement” event last June, the hat has to do with just that and more.

During his talk, Railey used a recent encounter with his youngest child and only daughter, Chloe, as an example of the importance of institutions backing up their statements on diversity with heartfelt action.

One day Chloe presented Railey with an object she had made. Railey was unsure what it was supposed to be. It’s a hat, Chloe revealed, and Railey promptly placed the oddly shaped headpiece onto his head. After modeling it for a few minutes, he asked her whether she would like him to keep the hat in his room or hers. Chloe’s scowl revealed her disappointment, and he quickly assured her he would keep the hat right by his bed.

Railey later discovered that Chloe had thrown the hat in the trash. “Daddy, I knew you didn’t want my hat when you asked if I could keep it in my room,” she said through tears. “I know you don’t care about me, and you don’t care about my hat. So I threw it away.”

Even though he had assured his daughter that the hat she made was the best hat he had ever seen, his actions had said otherwise. Railey says the same can be applied to the School of Medicine when it comes to diversity.

“You say you want diversity and inclusion,” Railey explained. “You say that diversity makes you better. You’ve got a statement. So why is the evidence of that back on the shelf, or better yet, in the trash? Why don’t you actually have diversity and inclusion for Black and brown people?”

Railey pointed out the low diversity among faculty members and medical school leadership at Duke. He then went on to challenge the school to do more to

recognize its problems and better align its actions with its mission.

“Part of the fix is acknowledging it,” he said. “Every mental or behavioral health-oriented provider understands that you can’t fix a problem you don’t admit you have. So, if our goal is to change from moment to movement, then leaders, board members, chancellors, deans, chairs, chiefs, program directors, it’s your duty to acknowledge your failure and accept the reality that we can’t be innocent bystanders anymore.”

Much like the hat—which didn’t quite fit and was uncomfortable—Railey says the school must confront uncomfortable truths and take action.

“Bigotry, elitism, inequality, microaggressions, they all come from a racist tree with roots in every institution, in every department, every division, every person, including me,” Railey said.

“So after you’ve leaned into the discomfort of your failures, after you’ve reignited your faith and believed people of color without defending or deflecting, after you’ve committed to fidelity that must be the foundation of a future for all peoples—Black, brown, white, or otherwise—after all of that, when you put the hat on, then the next question that I want you to answer for the Duke School of Medicine, for the nation, and for the world and for Chloe is, ‘Will you leave it on?’”

Watch a recording of the “Turning a Moment into a Movement” event at [bit.ly/3klpfKZ](https://bit.ly/3klpfKZ)

*Kenyon Railey, MD, is medical director of the Duke Physician Assistant Program, assistant professor in family medicine and community health, and assistant professor in neurology. He has served as assistant chief diversity officer for the School of Medicine.*

**“So, if our goal is to change from moment to movement, then leaders, board members, chancellors, deans, chairs, chiefs, program directors, it’s your duty to acknowledge your failure and accept the reality...”**

— Kenyon Railey





# a heavy burden to bear

---

FOR MOST MEDICAL STUDENTS, getting the opportunity to don a white coat is a major milestone, one that fills them with excitement to be that much closer to becoming a doctor.

Kirsten Simmons had that same excitement initially too. But as time passed, Simmons, now in her fourth year of medical school at Duke, says her white coat gradually gained new meaning. It now feels heavy and represents a burden she wishes she didn't have to bear.

In late May, as news broke that yet another Black man had been killed by police—this time George Floyd—Simmons's heart broke. A plethora of feelings emerged. Anger. Fear. Frustration. She thought about how, as a Black woman, she could become the next headline by simply jogging in her Durham neighborhood. Along with those feelings came the realization that for her and other Black medical students, the white coat is “just a safety garment.”

“Black medical students may find themselves dependent on names of institutions, connections with institutions,” she says. “Those are the actual lifesavers. Not our self-worth, not our dignity, not our respect, and not the intangible components of our humanity. That's not what protects us, and that's not what helps us be in a beloved community with others around us. The fact that we're defined

by other things was frustrating to me.”

The experience prompted her to put her feelings down into words that were eventually published as an essay in *Medium* called, “My White Coat Feels Heavy.”

Simmons says writing the essay was part of her healing—not just from the sadness she felt for the men and women who suffered from racial injustice, but also from the microaggressions and prejudices she herself endured as a medical student because of her skin color.

She recalls being mistaken by patients for other members of the medical team—anything other than a medical student. She also recalls the frustration of working with a white male medical student whom patients readily assumed to be a doctor whether he wore his white coat or not. “That is one of the privileges those of the non-minority race and ethnicity have,” Simmons says. “Their roles, their leadership is assumed by first

glance, and it's never questioned.”

Despite these negative experiences, Simmons remains optimistic about Duke's current efforts to eliminate racism.

“I think that Duke is taking advantage of this momentum,” she says. “Student groups, faculty members, and departments within the School of Medicine are grasping onto that. And they're holding higher administration accountable for more than creating task forces, modifying policies, and creating initiatives. Advocates of this great cause are expecting accountability and sustainability.

My personal hope is to come back to this institution in due time, and see tangible fruits of the work we are currently engaged in.”

*Kirsten Simmons is a fourth-year medical student. She is also completing a master's in theological studies at Duke Divinity School as a theology, medicine, and culture fellow.*

**Medium article:**  
[bit.ly/3m8YiuE](https://bit.ly/3m8YiuE)

**“Advocates of this great cause are expecting accountability and sustainability. My personal hope is to come back to this institution in due time, and see tangible fruits of the work we are currently engaged in.”**

– Kirsten Simmons



MICHAEL D'VITO

Charles Lucore on the campus of St. Francis Hospital in New York.

## 'LIKE A TSUNAMI'

When reports early last winter indicated that a mysterious new infectious disease had broken out of its point of origin in Wuhan, China, **Charles Lucore, MD'83, P'17, MBA**, began to prepare for its possible arrival in New York.

Lucore was one year into his new position as president of St. Francis Hospital, a highly rated hospital and cardiac care center on Long Island. Because New York is a hub of international travel, he anticipated the novel coronavirus would eventually show up.

"My feeling at first was that it would proba-

bly be somewhat similar to Ebola," says Lucore, referring to the 2014 outbreak that sparked widespread fear in the U.S. but produced only a handful of cases. "I thought we would probably see some cases. I certainly didn't imagine it would escalate into what it has escalated into."

During the first three months of 2020, as the severity and spread of the outbreak became increasingly apparent, Lucore and his team swung into action, effectively turning a cardiac care hospital normally focused on cardiovascular procedures and surgeries into a high-volume emergency respiratory care facility. They increased bed capacity by more than 50 percent; adapted the post-surgical suite and the cardiac catheterization lab into critical care areas; erected screening and triage tents outside the emergency room; gathered ventilators, PPE, and other essential supplies; provided training in critical care skills; suspended elective procedures; and made other changes to ready St. Francis to treat possible large numbers of COVID-19 patients.

**"And the St. Francis staff, bless 'em, have a tremendous culture of caring. They are committed to go the extra mile for the patient. It's all about the people. That's what made the difference last spring..."**

CHARLES LUCORE



All that advance work paid off, because when the pandemic arrived, it arrived fast.

"It hit like a tsunami," says Lucore. "We normally have about 60 critical care beds; now we were treating 95 to 100 critically ill patients. We normally have no more than 20 patients in isolation on a given day. But all COVID patients are isolation patients, and in three weeks, we went from 20 to 258."

### INGENUITY AND INNOVATION

Although St. Francis never became "flooded" to the degree that hospitals in Manhattan did, certain supplies—N95 masks, face shields, couplings for oxygenation equipment—were in short supply. The staff crafted countless solutions, including 3-D printing face shields and other equipment, and the surrounding community came to the rescue as well, donating food and supplies.

"The ingenuity and innovation of our staff and physicians was extraordinary," says Lucore, who did daily rounds himself and held regular briefings to identify problems and come up with solutions. "And our neighbors appreciate the care we provide, and they really stepped up to the plate."

The weeks during the peak were exhausting and stressful for the roughly 3,000-strong staff, Lucore says, but they performed with enormous fortitude, professionalism, and compassion. Every patient death hit hard, and many staff members sought the counseling services the hospital offered. About 8 percent of the staff contracted COVID-19, and two members of the environmental service team succumbed to the disease.

"That was very difficult for everybody," Lucore says. "Many of our colleagues also lost family members. We put in a memorial garden dedicated to our staff and family members who passed away that was funded by the St. Francis Hospital Foundation."

By late May, the surge had died down, and St. Francis slowly resumed prior operations related to elective surgeries and procedures. As of early September, the hospital had just two COVID-19 patients in

its care and was at approximately 90 percent of its 2019 patient volume.

All the while, Lucore and his wife, **Paula, BSN'81, P'17**, had to keep their family safe. Paula's mother normally spends summers with the family at their home in Montauk, New York, but because of concern about COVID-19's danger to the elderly, they cancelled this year's visit. Their daughter, **Jordan, BS'17**, was able to join them from Ann Arbor, Michigan, where she is doing her PhD work in anthropology. They had to cancel a planned family gathering to celebrate son Christopher's graduation from Hobart and William Smith Colleges; instead, Lucore said, Christopher's commencement was "basically an email with some testimonials."

### A CULTURE OF CARING

Lucore and Paula, both originally from the Northeast, met on a blind date at Duke, where he was earning his MD and she was in the School of Nursing. He went on to build a successful career in cardiovascular care and administration, culminating as president and CEO of HSHS St. John's Hospital in Springfield, Illinois.

Two years ago, after almost four decades in the Midwest, he and Paula returned to their home turf, where he took the position at St. Francis. They have been active in Duke's alumni activities, giving generously to the Davison Club and the Duke Medical Annual Fund and attending Duke alumni events in New York.

When they arrived in New York in 2018, they could not have imagined that just a year later they would wind up in the midst of a battle against a deadly global pandemic.

"We have so much more advanced technology now than we did for the 1918 flu pandemic, the only comparable event in recent history," says Lucore. "But what it came down to was people. And the St. Francis staff, bless 'em, have a tremendous culture of caring. They are committed to go the extra mile for the patient. It's all about the people. That's what made the difference last spring, and that's what will make the difference in the months ahead."

— *By Dave Hart*

## ALUMNI SPOTLIGHT



UT SOUTHWESTERN MEDICAL CENTER

Claire Aldridge, having recovered from COVID-19, is donating plasma in hopes of giving others a better chance to survive as well.

## TURNING A TERRIFYING ORDEAL INTO AN OPPORTUNITY TO HELP

**B**efore **Claire Aldridge, PhD'96**, and her husband, Matt Burnside, took their daughter on a long-planned spring break trip to New York City, she checked travel guidelines issued by the Centers for Disease Control and Prevention and by the University of Texas Southwestern Medical Center, where she is associate vice president of commercialization and business development. The focus at the time was on surface transmission of the novel coronavirus: avoid touching doorknobs, wash your hands frequently, and don't touch your face.

That sounded manageable. So, "washing our hands like crazy," Aldridge and her family took off as planned from Dallas/Fort Worth International Airport. It was March 11, 2020.

"If our flight had been even two hours later, we probably wouldn't have gone," says Aldridge, who earned her doctorate in immunology and genetics at the Duke University School of Medicine. "Because while we were in the air, everything changed. The world we landed in was very different than the one we took off from."

### 'AM I GOING TO DIE?'

That day, in a dizzying cascade of events, the World Health Organization declared the COVID-19 outbreak a pandemic; President Trump announced a ban on travel from Europe; actor Tom Hanks announced that he and his wife, Rita Wilson, had tested positive;

and the NBA and numerous college conference basketball tournaments abruptly suspended competition.

Having arrived in New York, Aldridge and her family—avoiding the subway and sanitizing their hands until they were raw—decided to escape the news barrage and go ahead to the Broadway musical they had booked seats for, a musical adaptation of *Mean Girls*.

They had tickets for another show the next night as well, but that day Broadway shut down. Stranded in a suddenly shuttered city, the family got an earlier flight and returned to Texas.

“We thought we were being so careful, and we were only there for 36 hours,” Aldridge says. “But that was enough.”

Two days later, Matt and their daughter, Lucy, fell ill. Aldridge herself came down with symptoms two days after that. Tests confirmed their fears: all three had COVID-19.

They—Aldridge and Matt especially—suffered debilitating body aches, crushing headaches, and overwhelming fatigue. Both lost their sense of taste and smell.

“It was among the worst I’ve ever felt, and you keep waiting and wondering whether it’s going to get worse,” says Aldridge. “There were definitely times where I thought, ‘Am I going to die? Is my husband going to die? Did we unwittingly kill anybody?’ With hindsight, I think our infections ended with us, because we quarantined as soon as we got home. And now that we’re done with it, we’re probably the safest people you know.”

### CHANGING LIVES

Aldridge was born in England and moved with her family to north Texas when she four years old; “My parents are British and I’m Texan,” she says. Always interested in science, she became fascinated by molecular genetics as an undergraduate at Texas A&M University. She intended to go to graduate school in California, but her senior research advisor suggested either the University of Wisconsin or Duke.

“I visited Duke, and it was the most beautiful place I’d ever seen,” she says. “The people were authentic and friendly. The tulips and trees were in bloom. You were two hours from the beach and two hours from the mountains. In Texas, you drive five hours just to get to the grocery store. I fell in love with Duke.”

“It was among the worst I’ve ever felt, and you keep waiting and wondering whether it’s going to get worse. There were definitely times where I thought, ‘Am I going to die?’ ”

CLAIRE ALDRIDGE

In 1996, the year she earned her PhD, her father was diagnosed with metastatic melanoma and given two years to live. Aldridge moved back to Texas to be with him, intending eventually to return to North Carolina. Twenty-five years later, she’s still in Texas and her father is still alive and well, having responded extraordinarily well to a clinical trial involving interferon gamma.

Her father’s experience helped shape Aldridge’s career. At UT Southwestern, she helps shepherd laboratory discoveries into therapies for clinical use.

“I didn’t want to do bench science, but I did want to be a part of giving people more time with their dad, or their spouse or sibling,” Aldridge says. “Somebody else can do the science. My role is to figure out how to get the science into the marketplace where it can change people’s lives.”

Now Aldridge is trying to help change lives for people with COVID-19. As recovered individuals, she and Matt are reservoirs of COVID-19-specific antibodies, the proteins that help fight infection and confer post-exposure immunity. They regularly donate their antibody-rich plasma, which can then be administered to patients with COVID-19. Although the effectiveness of convalescent plasma isn’t definitively known, the FDA has approved its use as a therapy that may help lessen the severity and/or duration of COVID-19.

“One thing this has shown me is that we are all part of a community, and everybody has a role to play,” Aldridge says. “Sometimes your role is something nobody else can do. We can donate plasma, so we donate plasma. And we do grocery shopping and other things for some people we know who are more vulnerable than we are. We’re doing what we can to take something negative and turn it into something positive.”

— By Dave Hart

---

Read a first-person account of Claire Aldridge’s experience with COVID-19 and plasma donation on the UT Southwestern website [bit.ly/2TgQ0EG](https://bit.ly/2TgQ0EG)

# A LONG STRUGGLE

**E**ric Dziuban, MD’07, the Centers for Disease Control and Prevention’s country director for the southwest African nation of Namibia, was enjoying a weekend at the coast with his family when the call came. A Romanian couple who had recently arrived in the Namibian capital of Windhoek from Spain had fallen ill. Tests confirmed everyone’s fear: COVID-19 had finally come to Namibia.

“We grabbed the kids, threw everything in the car, and drove back to the capital to start our emergency response,” says Dziuban, whose office works closely with the Ministry of Health and Social Services and oversees the CDC’s public health programs in Namibia.

COVID-19 was late arriving—nearly two months after the first cases appeared in the U.S.—and for a long time it looked as if the deadly coronavirus might let Namibia off lightly. After those first two cases, a handful of others cropped up over the next few weeks. By early April, 16 cases had been confirmed. And then they stopped.

“We had no new cases for 45 days,” says Dziuban, who has been in Namibia directing the CDC’s operations there for almost three years. “The government imposed strict lockdown after the first eight cases, and it worked. The more time that went by, the more confident we were that we had in fact interrupted transmission. But the numbers in our neighboring countries were skyrocketing, and we knew it was just a matter of time. We knew we couldn’t keep it out forever.”

### THE VIRUS GAINS A FOOTHOLD

Dziuban was right. Namibia imports large quantities of food and other goods across its borders with other countries, especially South Africa directly to the south, which was battling a rapidly climbing COVID-19



PHOTOS COURTESY ERIC DZIUBAN

Before the pandemic, Eric Dziuban spent most of his time in Namibia overseeing the Centers for Disease Control and Prevention's programs addressing HIV and tuberculosis. Now he's helping battle the COVID-19 outbreak there.

**"Lab capacity was minimal at the beginning, and we could only do about 20 tests per day. Now we're over 1,000. For a country this size, that's a pretty remarkable improvement."**

ERIC DZIUBAN



Eric Dziuban and his wife and sons are in 'family lockdown,' leaving the house only for necessities, during the COVID-19 pandemic.

caseload. Trucks transporting goods across the border eventually brought the coronavirus back as well. And this time, despite the re-imposition of lockdown measures, once it had a foothold, it was there to stay.

It took four months—124 days—for Namibia's number of confirmed cases to climb from 1 to 1,000. It took just 14 days to go from 1,000 to 2,000, and even less than that to rise to 3,000. By late August, Namibia had more new COVID-19 cases per population each day than any other of Africa's 50-plus nations.

For Dziuban, that has meant months oversee-

ing emergency operations in conjunction with his Namibian colleagues, advising the government on policy, implementing infection prevention and control protocols, and helping increase the availability and effectiveness of testing.

"I've certainly learned a lot more about molecular diagnostics than I ever knew before," says Dziuban. "Lab capacity was minimal at the beginning, and we could only do about 20 tests per day. Now we're over 1,000. For a country this size, that's a pretty remarkable improvement. It's in situations like that where we felt we could add the most value, but it's required

some of us to get out of our comfort zones. I'm not a trained laboratory scientist, so there are a lot of things I've had to learn alongside our colleagues here."

#### 'A COUPLE OF LIFETIMES AGO'

Dziuban came to Duke from his home state of Michigan and focused on pediatrics, ultimately finding his sweet spot at the intersection of pediatrics and public health.

"At the time, just moving from Michigan to North Carolina felt like a big adventure," he says. "I had a great experience at Duke. I learned a lot about myself and built some strong bonds. That feels like a couple of lifetimes ago now."

He did a fellowship at the CDC in Atlanta for his third-year research project, and after graduation and a pediatrics residency he joined a program providing HIV care for children in Eswatini, formerly known as Swaziland, in Africa. Eight years ago, he returned to the CDC, and when the country directorship in Namibia came open, he jumped.

"My wife and I consider Namibia our home," he says. "Our two little boys love it. They get to experience a lot of things they wouldn't get in the U.S. When COVID broke out, there was the opportunity for people working for the U.S. government to return to the U.S., but we felt the right thing to do was stay here and help guide the country's response."

Dziuban credits the Namibian government with being proactive and transparent in dealing with the crisis, especially given its extremely limited public health resources; everything from trained health care workers to basic supplies like medical oxygen is in short supply. Many people live together in close quarters, and lockdown measures take a steep economic toll on many families that rely on limited incomes.

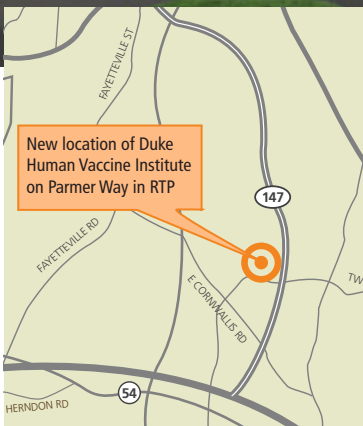
"Namibia has a long struggle ahead of it," says Dziuban. "There's a lot that can be done even with limited resources; good public health decision-making doesn't have to be expensive. But resources are definitely a limitation. We're all waiting for a safe and effective vaccine, but we know that even when that happens it will take some time for it to get on the ground here. There is hope at the end of the tunnel, but we're realistic about how long that tunnel is."

— By Dave Hart

## SOM to open new research center

The Duke University School of Medicine is expanding into a newly leased research center in the Research Triangle Park (RTP). The 273,000-square-foot facility in the Parmer RTP research and development campus, formerly home to pharmaceutical maker GlaxoSmithKline, is being renovated to accommodate School of Medicine faculty, staff, and labs as soon as January 2021.

The expansion into RTP was precipitated by a surge in new federal research grants to fund vaccine development. In 2019, the Duke Human Vaccine Institute (DHVI) received a large



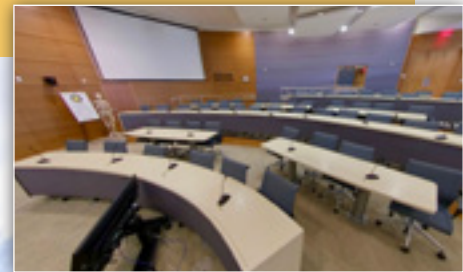
Collaborative Influenza Vaccine Innovation Centers (CIVICs) federal contract from the National Institute of Allergy and Infectious Diseases to develop, manufacture, and test in humans more durable, longer-lasting vaccines against influenza. Additional grants

are funding vaccine development for HIV and most recently for COVID-19.

Researchers working on the Duke CIVICs initiative as well as scientists in the Departments of Surgery, Immunology, Pediatrics, and Medicine will occupy the new facility. The center is projected to reach full capacity in 2022, said Thomas Denny, MPhil, MS, associate dean for Duke RTP Administration and chief operating officer for DHVI.

Denny said the decision to lease the space in RTP was driven by the opportunity to move in quickly and support ongoing and rapidly evolving vaccine development research. The location, just 10 minutes from the main Duke campus, is also a plus as many of the researchers will be frequently traveling between the campuses.

# VIRTUAL TOUR EXPLORES DUKE HEALTH FACILITIES



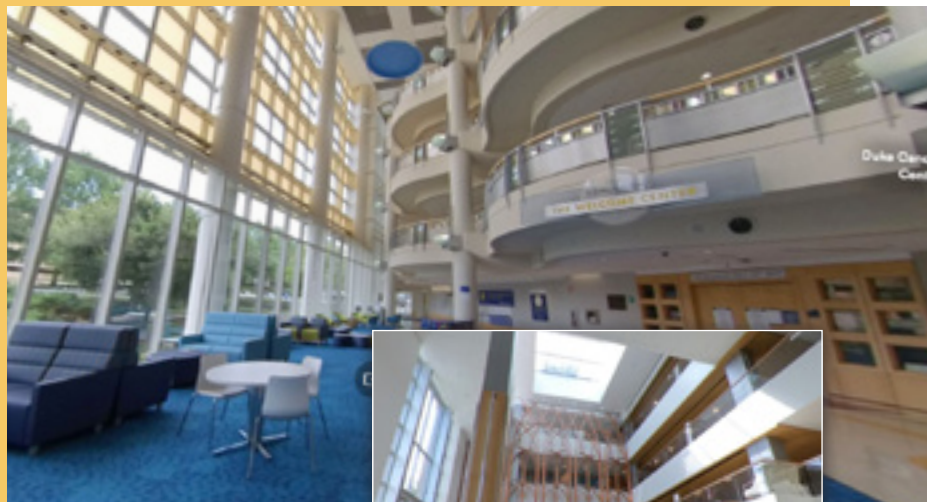
The new virtual tour lets visitors explore facilities including the Mary Duke Biddle Trent Semans Center for Health Education and its Learning Hall.

Visitors can now explore Duke Health's medical, research, and educational facilities without leaving home, thanks to a new interactive, immersive virtual tour.

The tour experience starts at Duke Medicine Circle and includes stops at the Mary Duke Biddle Trent Semans Center for Health Educa-

tion, Duke University Hospital, Duke Clinic, Duke Medicine Pavilion, Duke Children's and Children's Health Center, the research laboratories and other facilities on Research Drive, and Duke's community hospitals and clinics.

Access the virtual tour at [medschool.duke.edu/virtualtour](https://medschool.duke.edu/virtualtour).



Above, McGovern-Davison Children's Health Center, Duke Children's outpatient specialty care clinic. At right, is Duke Cancer Center.



## Forum explores role of data science in crises

What role can data science play in confronting the COVID-19 pandemic and social injustice?

A panel of experts from Duke University, the State of North Carolina, and the technology industry shared data sources and approaches to mitigate these public health crises during an online research forum attended by more than 675 people and hosted by the Duke University School of Medicine in late June 2020. Participants represented 98 Duke organizations and 79 external groups. The presentations are available online at the forum website at [medschool.duke.edu/research/data-science-information-technology/data-science-symposium](https://medschool.duke.edu/research/data-science-information-technology/data-science-symposium)

Michael Pencina, PhD, vice dean for data science and information technology in the School of Medicine and a professor in the Department of Biostatistics and Bioinformatics, organized the event.

North Carolina government officials described how datasets related to numbers of cases of COVID-19, virus tracing, testing, hospital surges, and amount of available personal protective equipment have been vital in helping shape policies regarding shutting down and re-opening the community and in the workplace.

These datasets have also helped decision-makers better understand the demographics of people infected with COVID-19 and helped guide strategies to mitigate the spread of the virus, especially in the most vulnerable populations.

The conversation also included scientists and innovators in academia and private industry who have developed tools to track COVID-19 response.



Hospital staff members sign a wall in a new lobby area under construction at Duke Raleigh Hospital.

## Pavilion at Duke Raleigh to open in 2021

Construction on Duke Raleigh Hospital's 214,000-square-foot, six-story South Pavilion will be completed in the summer of 2021.

The South Pavilion will expand Duke Raleigh Hospital's main lobby

area, café, and surgery platform. The South Pavilion adds new operating rooms and more spacious suites for patients as they prepare for and recover from surgery.

The project also includes 92 private patient rooms, complete with separate sitting areas for families. Team members had the opportunity to sign a wall in the future lobby of the building this summer.



### Duke University School of Medicine Facts & Figures 2020

Duke University School of Medicine is one of the nation's leading institutions for medical education, clinical care and biomedical research. Planning for the school began in 1923 when businessman James Buchanan Duke, benefactor of Duke University and the Duke Endowment, bequeathed \$1 million to establish the Duke University School of Medicine, the Duke University School of Nursing and Duke University Hospital. Less than five years after the school opened in 1930, the Association of American Medical Colleges (AAMC) ranked Duke in the top quarter of medical schools in the country. Now, 90 years later, the School of Medicine comprises more than 2,500 regular-rank faculty physicians and researchers and nearly 2,000 health professions and biomedical PhD students, the School of Medicine, Duke University Health System, School of Nursing and the Private Diagnostic Clinic (PDC) create Duke Health.

Overview
2020 Priorities
Research
Education
International Education & Training
Patient Care
Community Engagement

## FACTS & FIGURES AVAILABLE ONLINE

The Duke University School of Medicine has released a new online overview of what makes the school a top institution for medical education, clinical care, and biomedical research.

*Facts & Figures 2020* includes detailed information about the School of Medicine's history, leadership, faculty, alumni, programs, enrollment, research discoveries, patient care services, and much more.

The website also highlights the School of Medicine's 2020 priorities: the response to the COVID-19 pandemic and a commitment to dismantling systemic racism.

*Facts & Figures 2020* is available at [medschool.duke.edu/about-us/news-and-communications/facts-figures](https://medschool.duke.edu/about-us/news-and-communications/facts-figures).



“Scholarships are a ‘win-win’ for both the recipients and Duke!”

**Katherine (Kathy) Upchurch, MD’76, P’10**, followed her late father **Samuel Upchurch, MD, HS’34-’41**, to Duke University School of Medicine. The outstanding education she received at Duke was accompanied by mentoring from some of her father’s friends, launching her on a successful path to become an academic rheumatologist.

Important to her since her graduation has been a focus on “scholarship philanthropy.” She has led by example, having endowed two School of Medicine scholarships and an undergraduate (Trinity) scholarship. Women’s athletics scholarships and scholarships endowed by the Women Impact

Network have also been beneficiaries of her support.

“Scholarships encourage and enable great students to come to Duke University and the School of Medicine, and they create a lifelong ripple effect as each scholar pays it forward in her own way,” she says. “I’ve enjoyed everything I’ve been involved with at the school, and I’m happy to be able to contribute. I volunteer my time and resources because I believe that Duke has the potential to make the world a better, safer place, and I want to be part of that journey. Scholarships are a ‘win-win’ for both the recipients and Duke!”

Gifts for medical education that help prepare the next generation of great physician leaders are among the most meaningful ways you can support the Duke University School of Medicine. Please consider making a gift online at [gifts.duke.edu/dmaa](https://gifts.duke.edu/dmaa).

To learn more about how to support the School of Medicine, please contact Sarah Nicholson, assistant vice president, at [sarah.nicholson@duke.edu](mailto:sarah.nicholson@duke.edu).

## GRANT SUPPORTS PA SCHOLARSHIPS FOR MINORITY STUDENTS

The Health Resources and Services Administration (HRSA) awarded the Duke Physician Assistant Program a \$2 million five-year grant for the project “Physician Assistant Leaders in Underserved Communities.”

The grant will provide \$400,000 for scholarships to be awarded to 10 disadvantaged students each

year, including students who are members of racial and ethnic minority groups. It will also allow the creation of unique clinical opportunities through longitudinal placement in primary care settings in medically underserved communities.

This project specifically addresses HRSA’s clinical priority of “Transforming the workforce—targeting the need” by training PA leaders in primary care in medically underserved communities who will be effective in utilizing and collaborating with community-based organizations for better health of their communities.



## Duke performs 1,500th heart transplant

In mid-October, a team of surgeons completed Duke Heart’s 1,500th heart transplant, making Duke the only center in the Southeast to reach that milestone.

Duke is one of the nation’s leading centers for heart and multi-organ transplants. Duke uses innovative organ recovery measures that produce median wait times a full 100 days shorter than the national average, and in December 2019, Duke surgeons became the first in the U.S. to transplant an adult heart into a recipient through a process known as Donation after Circulatory Death, or DCD.



## Nearly New Shoppe closes its doors

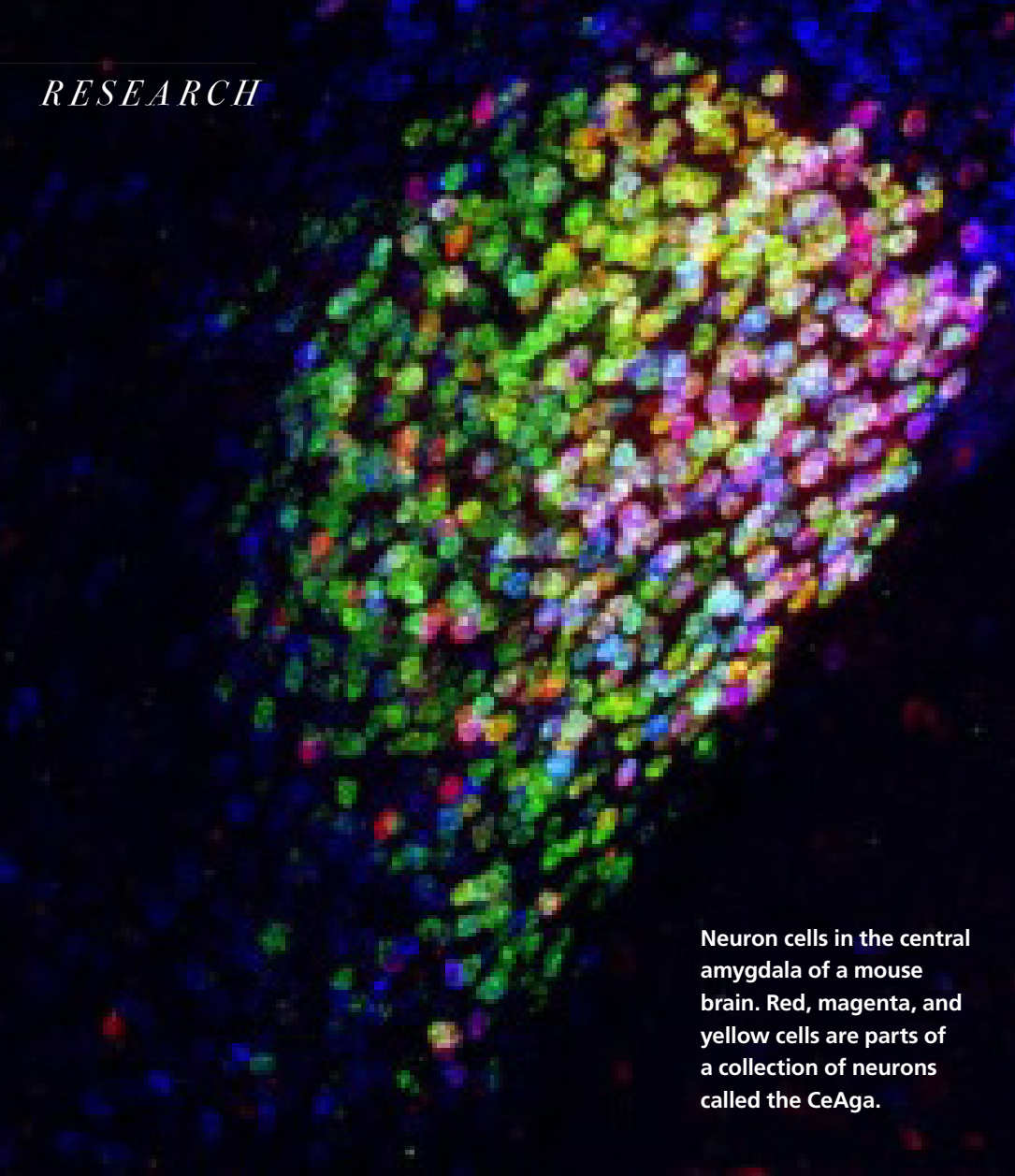
After more than half a century and millions of dollars raised to support student scholarships in the Duke University School of Medicine and Duke University School of Nursing, the Nearly New Shoppe thrift store ceased operations at the end of August 2020.

The Nearly New Shoppe was founded in 1968 by wives of Duke medical faculty members led by Ethel Wyngaarden, whose husband James Wyngaarden was then chair of the Department of Medicine. She recruited a small group of other spouses of School of Medicine faculty, and they each chipped in \$25, for a total of \$425, to open the shop in October 1968.

In the 52 years since then, the Nearly New Shoppe has raised more than \$5 million and provided scholarships for hundreds of medical and nursing students. Legions of volunteers staffed the shop, which resided in three different Durham locations over the years. The organizers used the shop’s proceeds to establish endowments that are currently valued at more than \$18 million and will continue to support medical and nursing scholarships for many years to come.



**Ginny Lang, BSN'67, center, sorts inventory at the Nearly New Shoppe along with volunteers Pat Owen, left, and Harriett Mitchell, right. Lang was a longtime volunteer and president of the Medical Faculty Wives, which established the shop to generate funds for medical and nursing scholarships at Duke.**



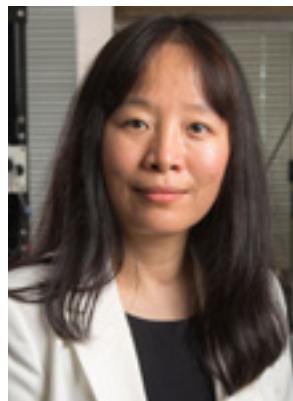
Neuron cells in the central amygdala of a mouse brain. Red, magenta, and yellow cells are parts of a collection of neurons called the CeAga.

## RESEARCHERS FIND POTENT PAIN-SUPPRESSION CENTER IN BRAIN

A Duke University research team has found a small area of the brain in mice that can profoundly control the animals' sense of pain.

The team, led by senior author Fan Wang, PhD, the Morris N. Broad Distinguished Professor of Neurobiology in the Duke University School of Medicine, found that general anesthesia activates a specific subset of inhibitory neurons in the central amygdala, which they have called the CeAga neurons.

The team found the CeAga was connected to many different areas of the brain. By giving mice a mild



Fan Wang

pain stimulus, the researchers could map all of the pain-activated brain regions. They discovered that at least 16 brain centers known to process the sensory or emotional aspects of pain were receiving inhibitory input from the CeAga.

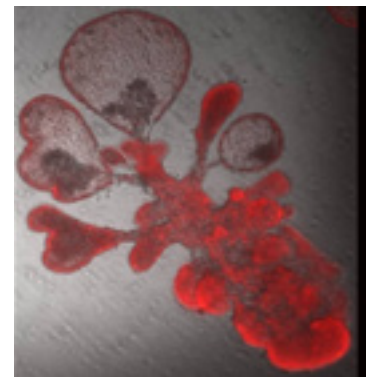
When the researchers activated the CeAga neurons, mice instantly stopped exhibiting the self-caring behaviors a mouse exhibits when it feels uncomfortable. When the scientists dampened the activity of these CeAga neurons, the mice responded as if a temporary insult had become intense or painful again.

Now the researchers are going to look for drugs that can activate only these cells to suppress pain as potential future pain killers, Wang said.

## 'Mini-lungs' provide unique insight into disease processes

A team of Duke University researchers has developed a lab-grown living lung model that mimics the tiny air sacs of the lungs where coronavirus infection and serious lung damage take place. This advance has enabled them to watch the battle between the SARS-CoV-2 coronavirus and lung cells at the finest molecular scale.

The virus damages the delicate, balloon-like air sacs, known as alveoli, leading to pneumonia and acute respiratory distress, the leading cause of death in Covid-19 patients. But scientists have been hampered in Covid-19 studies by the lack of experimental models that mimic human lung tissues.



Now, a team led by Duke cell biologist Purushothama Rao Tata, PhD, has developed a model using "lung organoids," also dubbed mini-lungs in a dish. The organoids are grown from alveolar epithelial type-2 cells (AT2s), which are the stem cells that repair the deepest portions of the lungs where SARS-CoV-2 attacks.

A paper describing the development of the mini-lungs and some early experiments with coronavirus infection appeared early online Oct. 21 in the journal *Cell Stem Cell*.

Tata, who is a part of Duke's regenerative medicine initiative, Regeneration Next, said his lab was working on growing the mini lungs in mid-2019 and had achieved a working model just as the coronavirus pandemic emerged. He said his group will be working with both academic and industry partners to use these cells for cell-based therapies and eventually to try to grow a complete lung for transplantation.



## NEW DRUG STOPS CRAVINGS WITH FEWER SIDE EFFECTS

Duke University researchers have developed a synthetic molecule that selectively dampens the physiological rewards of cocaine in mice. It also may represent a new class of drugs that could be more specific with fewer side effects than current medications.

In mice that were allowed to self-administer cocaine, the new molecule slowed down their drug use from 20 minutes to an hour and reduced the amount of drug they used by more than 80 percent, compared to a control group of mice.

The molecule, SBI-553, activates cell surface chemical receptors called G protein-coupled receptors or GPCRs. For decades, researchers have

pursued molecules that would activate a specific GPCR called neurotensin receptor 1 (NTSR1) as a way to interrupt the actions of stimulants and treat cocaine and methamphetamine addictions.

But so far, the drugs that activate NTSR1 have severe side effects for blood pressure, body temperature, and motor coordination.

In a paper online in the journal *Cell*, Duke researchers, in collaboration with the Sanford Burnham Prebys Medical Discovery Institute in La Jolla, California, report that SBI-553 was found to reduce the amount of cocaine the animals consumed and their associated drug craving. And it did so without the usual side effects.

The research team was recently awarded a \$3.58 million grant from the National Institutes of Health to develop SBI-553 for clinical trials and evaluate its effects on behaviors associated with opioid addiction.

## Olfactory cells' secret weapon against influenza

Duke researchers have shed intriguing new light on the surprising resilience of olfactory cells in resisting influenza viruses that kill other cells, notably the epithelial cells that line the lungs.

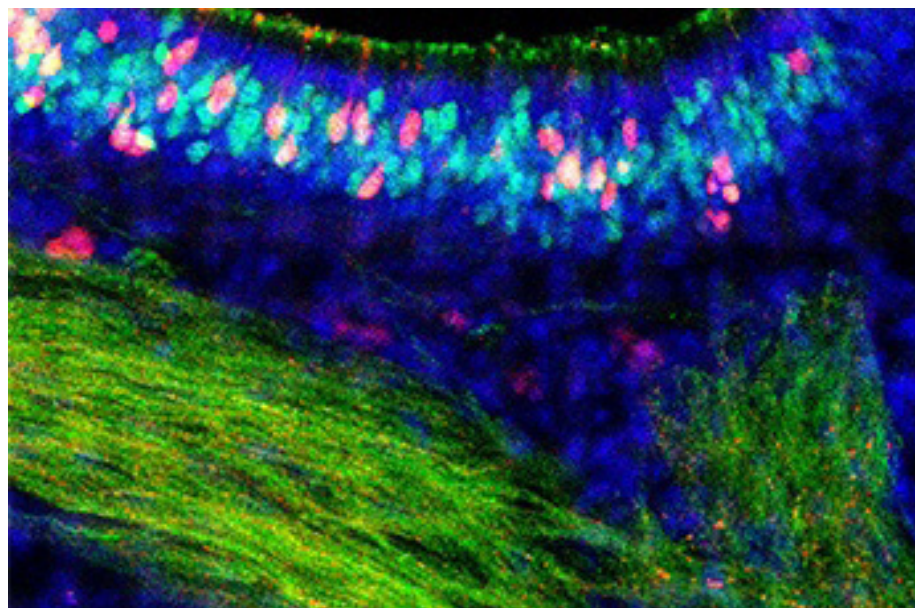
Cells lining the upper airways are generally exposed to viruses in the same amounts as lung cells and yet somehow aren't as likely to be killed by infection.

A collaboration between Nicholas Heaton, PhD, assistant professor of molecular genetics and microbiology in the Duke University School of Medicine, and Ashley Moseman, PhD, assistant professor of immunology, reveals the olfactory cells'

successful strategy against infection and points out the diversity of immune responses from one kind of cell to another.

In a paper in *Cell Reports*, the team found that the olfactory cells did become infected but were able to fight off the virus and avoid being destroyed by it. The olfactory cells activated a known set of genes that respond to the invader by shutting down viral replication but turned them up much higher or faster than other cell types do.

Heaton said his future work will continue to explore the immune response differences between cells.



## STUDY LINKS INFLAMMATION AND POST-SURGICAL DELIRIUM

New research by Duke scientists points to inflammation as a possible cause of post-surgical delirium in Alzheimer's disease patients who undergo orthopedic or other surgeries.

Post-surgical delirium is a common aftereffect of surgery in these patients, often leading to a poor recovery and a higher risk of dying. The cause of this acute disruption in the patient's mental status is largely unknown.

The new study by a Duke team led by Niccolò Terrando, PhD, associate professor in the Department of Anesthesiology



Niccolò Terrando

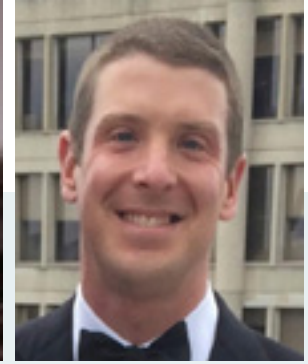
at the Duke University School of Medicine, indicated that in mice, inflammation, especially as it affects the blood-brain barrier in older and more frail subjects, amplifies neurodegenerative processes and drives the development of post-surgical delirium. The study was published online in *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*.

The researchers studied the effects of orthopedic surgeries in older mice with the pathological features of human Alzheimer's disease. Inflammation disrupted the blood-brain barrier, especially in older and more vulnerable animals, and caused rapid accumulation of amyloid beta (a key protein dysregulated in the Alzheimer's disease brain), which altered the function of immune cells in the central nervous system, thus resulting in post-surgical delirium.

Terrando said future studies will focus on how surgery affects the blood-brain barrier and potential ways to curtail this neuroinflammatory response in older surgical patients, particularly those with Alzheimer's disease.



Suephy C. Chen



Michael Boyce

## CHEN NAMED CHAIR OF DERMATOLOGY

Suephy C. Chen, MD, MS, has been named the new chair of the Department of Dermatology, effective January 4, 2021. She is currently vice chair and professor of dermatology at Emory University. She also serves as director of the Emory Dermatology Center for Outcomes Research and Safety and as director of TeleDermatology for the Regional TeleHealth Service of the VA Southeast Network.

A board-certified dermatologist, Chen is an internationally recognized expert in cutaneous melanoma and pigmented lesions as well as teledermatology. She also studies the quality of life impact of dermatologic conditions. She has been continuously funded by the Veterans Administration, National Institutes of Health, and numerous foundations.

Chen graduated from the Massachusetts Institute of Technology in 1989 and received her medical degree from Johns Hopkins School of Medicine in 1993. She completed her medicine internship at the Beth Israel Deaconess Medical Center in Boston and her dermatology residency at Emory University in 1997. She obtained a master's degree in health research and policy at Stanford University in 2000. She serves on the Board of Directors for the Society of Investigative Dermatology.

Chen succeeds Russell Hall, MD, who was chief of the Division of Dermatology for more than a decade and became chair when the division was elevated to depart-

mental status in 2009. He has been the only chair of the department since its formation.

## SOM ALUMNI HONORED WITH DAA AWARDS

Five School of Medicine alumni were honored with 2020 Duke Alumni Association Awards, which annually recognize individuals who embody the spirit of Forever Duke and advance the Duke ideal of knowledge in service to society.

Recipients of 2020 Duke Alumni Association Forever Duke Awards, which recognize alumni for excellent recent volunteer service to Duke, the DAA, and other alumni groups, include:

- **Oren Cohen, MD'87**
- **Rowena Dolor Cuffe, AB'87, MD'91, MHS'98, HS'91-'94**
- **Blake Long, AB'82, MD'86, HS'92-'95, MBA'15**

Recipients of Beyond Duke Service and Leadership Awards, which recognize alumni who have distinguished themselves through service to their community, their country, or society at large, include:

- **Linda Markee, BSN'63,** and **Joseph Markee, MD'65**
- **Lori Pierce, MD'85**

## BOYCE TO CO-DIRECT FACULTY DIVERSITY PROGRAM

Michael Boyce, PhD, associate professor of biochemistry in the School of Medicine, will co-direct a national program to enhance

faculty diversity at research universities, organized by the American Society for Cell Biology (ASCB) and funded by the National Institutes of Health (NIH).

The NIH recently launched a new Maximizing Opportunities for Scientific and Academic Independent Careers (MOSAIC) program, with the goal to facilitate the transition of scientists from diverse backgrounds into tenure-track research faculty jobs. ASCB will receive \$1.3 million from the NIH to create a program to build on the strengths of promising K99/R00 postdoctoral fellows through skills development workshops, mentor training opportunities, and institutional culture-changing initiatives at universities.

Boyce will co-direct the five-year program with ASCB CEO Erika Shugart; ASCB Director of Professional Development Ashanti Edwards; and Mary Munson, PhD, of the University of Massachusetts Medical Center.

Boyce has been very active in diversity, equity, and inclusion initiatives in the Department of Biochemistry, School of Medicine, and Graduate School at Duke.

## AWARDS CELEBRATE ACHIEVEMENTS IN DIVERSITY AND INCLUSION

The Duke University School of Medicine has announced the 2020 recipients of the Michelle P. Winn Inclusive Excellence Award. Each year this award celebrates exceptional achievements in diversity and inclusion among the

school's faculty, staff, trainees, and students.

Four individual recipients and one team recipient were chosen from the more than 5,500 staff members, 2,200 faculty members, 1,500 students, and 1,000 residents and fellows who make up the School of Medicine.

This year's recipients are:

- **Kimberley Evans, MD, HS'99-'03**, associate professor of medicine, Department of Medicine (faculty award)
- **Tamara Saint-Surin, MD**, Department of Medicine (resident award)
- **Priscilla Graham**, human resources director, Department of Neurosurgery (staff award)
- **Nathaniel Neptune, MBA, MS3** (student award)
- **Cultural Determinants of Health & Health Disparities Faculty and Facilitators** (team award)

In addition, the nominees for this year's award included Andrew Spector, MD (Neurology); **Kevin Saunders, PhD'10** (Duke Human Vaccine Institute); **Oana Craciunescu, PhD'98** (Radiation Oncology); Deanna Adkins, MD (Pediatrics); **Latoya Patterson, MD, HS'12-'16** (Obstetrics and Gynecology); Luke Gatta, MD (Obstetrics and Gynecology); Kimberly Dorman (Medicine); and Jane Black (Obstetrics and Gynecology).

The award is named for **Michelle Winn, MD, HS'92-'99**, associate professor of nephrology in the Department of Medicine, who passed away in July 2014.



Dennis Clements



Susanna Naggie



Adrian Hernandez

## CLEMENTS NAMED DGHI INTERIM DIRECTOR

**Dennis Clements, MD, PhD, HS'73-'76, HS'86-'88**, professor of global health and senior adviser at the Duke Global Health Institute (DGHI), has been named DGHI's interim director.

Clements, who served on the Duke committee that created the interdisciplinary institute in 2006, is an emeritus professor of pediatrics and a professor of family medicine and community health. In addition to his role as senior adviser, he serves as DGHI's director of undergraduate studies and director of the Global Health Third-Year Study Program for medical students. He is also a professor in the School of Nursing.

DGHI was formed as part of Duke's commitment to advance knowledge and innovation on complex health challenges and address disparities in health outcomes for marginalized communities around the world.

## FACULTY RECEIVE STRONG START AWARDS

Four School of Medicine faculty members have been selected to receive 2020 Physician-Scientist "Strong Start" awards. The School of Medicine created the awards program in 2016, funded with a gift from the Duke Endowment, to support promising new physician-scientists at Duke as they develop independent research programs. Each recipient will receive \$70,000 annually for three years to support their research programs.

This year's recipients are:

- **Michael D. Deel, MD, HS'13-'17**, assistant professor, Department of Pediatrics
- **Michael E. Lidsky, MD, HS'09-'16**, assistant professor, Department of Surgery
- **Joshua T. Thaden, MD, PhD, HS'11-'17**, assistant professor, Department of Medicine
- **Yen-Rei Andrea Yu, BS'97, MD'04, PhD'04, HS'12**, assistant professor, Department of Medicine

The Strong Start program is administered by the School of Medicine's Office of Physician-Scientist Development and integrates with several physician-scientist development programs, including the Medical Scientist Training Program (MD-PhD students) and the Lefkowitz Society (clinical residents and fellows).

Seventeen faculty members have received funding from the program since its inception.

## NAGGIE NAMED VICE DEAN FOR CLINICAL RESEARCH

**Susanna Naggie, MD, HS'02-'09, MHS'13**, has been named the new vice dean for clinical research for the Duke University School of Medicine. She has served as associate dean for clinical research initiatives and regulatory affairs in the School of Medicine since 2019.

Naggie will have direct responsibility for advancing the clinical research mission of the School of Medicine, which has one of the largest clinical research portfolios in the country among medical schools. She will oversee the Duke Office of Clinical Research and Office of Regulatory Affairs and Quality. She will work in partnership with Geeta Swamy, MD, associate vice president for research and vice dean for scientific integrity, who oversees the Office of Scientific Integrity and the Institutional Review Board. She will also continue her leadership role with the Clinical Research Units.

Naggie is a physician-scientist focused on the care of patients with HIV and viral hepatitis. She leads a research program aimed at understanding the mechanisms of accelerated liver fibrogenesis in this patient population and the development of biomarkers to guide medical decision-making.

## HERNANDEZ NAMED VICE DEAN AND EXECUTIVE DIRECTOR OF DCRI

After a national search, **Adrian Hernandez, MD, HS'00-'04, MHS'06**, has been named vice dean and the new executive director of the Duke Clinical Research Institute (DCRI).

Hernandez provides visionary and strategic direction to the DCRI; supports and strengthens its research and teaching agendas; and continues to raise its national and international profile. Among many key responsibilities, Hernandez oversees the DCRI to ensure continuance of a broad spectrum of clinical research programs, clinical trials, clinical and pre-clinical education, and shared data and repositories.

Although Hernandez has stepped away from some elements of the vice dean for clinical research role he has held since 2017, he maintains a leadership role in the dean's office for clinical research strategy. He continues his oversight of the Duke Institute for Health Innovations and participates in the School of Medicine's leadership team for data science and AI Health.

Hernandez is a cardiologist and an internationally recognized leader in clinical research, ranging from health services and policy research to clinical trials.

## OBITUARIES

**Henri "Hal" Clarke, MD, HS'59-'63**, died on August 20. He was 87. He earned his undergraduate degree at The University of the South in Sewanee, Tennessee, and his medical degree at the Medical College of Georgia, graduating in 1958 as a member of Phi Rho Sigma medical fraternity. He served an internship at the University of Virginia and completed a residency in obstetrics and gynecology at Duke. He served in the U.S. Air Force, stationed in Cocoa Beach, Florida, and had a long career with his OB/GYN practice in Beaumont, Texas. He was active in the community and his church, serving as senior warden on the vestry at St. Mark's Episcopal Church. He enjoyed classical music and served for many years on the board of the Beaumont symphony.

**Lynn Fort III, MD'60, P'82**, died on June 2. He was 83. He grew up in West Palm Beach, Florida, and graduated in 1954 from Palm Beach High School. He was a member of the Alpha Epsilon Pi fraternity and was chosen as an outstanding member of his high school class numerous years. An accomplished athlete, he earned all-state honors in both football and baseball. He attended Duke University on a partial football scholarship, where he majored in pre-med and joined the Sigma Alpha Epsilon fraternity. After two and a half years of undergraduate studies, he was accepted into Duke University School of Medicine. After military service, Dr. Fort continued his clinical training at Duke, finishing in 1968. He joined Charlotte Surgical Group in 1968, where he had a successful career for 30 years and retired in 1997.

**Thomas Pegram Graham Jr., AB'59, MD'63, HS'67-'69, P'86, P'90**, died on March 18. He was 83. After earning his undergraduate and medical degrees at Duke, he continued his training at Boston Children's Hospital, the National Institutes of Health, and Duke before going to Vanderbilt University Medical School in 1971 to develop its program in pediatric cardiology, which is named in his honor. He was a national leader in the care and research of congenital heart disease. Among his honors were the Gifted Teacher Award from the American College of Cardiology, the Founder's Award by the American Academy of Pediatrics Section of Pediatric Cardiology, and a Distinguished Service Award from the American College of Cardiology. The Duke University Medical Alumni Association awarded him a Lifetime Achievement award in 2010. Recently the Vanderbilt faculty established The Thomas P. Graham Jr. Award for Dedicated Service to Patient-Centered Care.

**Thomas Kinney, AB'66, MD'70**, died on May 25. He was 76. He was the Wilburt C. Davison Distinguished Professor of Pediatrics and associate chair emeritus in the Department of Pediatrics at Duke University School of Medicine. He made outstanding academic contributions to clinical research in pediatric hematology. He played a critical role in implementing North Carolina's newborn screening program for sickle cell disease and co-chaired the Agency for Health Care Policy and Research Panel. He also played a leadership role in defining the use of hydroxyurea to treat children with sickle cell disease. As a member of the Department of Pediatrics, he served as director of the Pediatric Residency Program, co-director of the Medicine-Pediatric Residency Program, and associate dean in the School of Medicine. He also directed the Children's Clinical Research Unit. He received the Excellence in Professionalism Award from the School of Medicine in 2015 and the Duke Medical Alumni Distinguished Faculty Award in 2013.



**William "Bill" B. Kremer, MD, HS'60-'61, HS'64-'66**, died on April 19. He was 85. He earned his undergraduate degree at the University of Buffalo and his medical degree from State University New York Upstate Medical School in Syracuse. After completing his internship and residency at Duke, he received an appointment to the National Institutes of Health as a clinical associate to research cancer. He returned to Duke, where he became a clinical investigator and associate professor of medicine and chief of the VA hematology/oncology division. In 1975, he and his family moved to Lakeland, Florida, where he practiced oncology



at the Watson Clinic and Lakeland General Hospital. In 1996, he became the medical director of Good Shepherd Hospice.

**Edward Humes Laughlin, MD'58**, died on May 25. He was 87. A general surgeon who specialized in surgical oncology, he earned his undergraduate degree at the University of Virginia before attending Duke University School of Medicine. He was the first chairman of surgical programs at the School of Primary Care at the University of Alabama in Huntsville and was a retired professor of surgery at the University of Alabama at Birmingham School of Medicine. He was the author of three books on cancer and more than fifty medical articles as well as many entertaining short stories on his history in Huntsville. He was a member of professional organizations including the American College of Surgeons, Medical Association of the State of Alabama, Society of Surgical Oncology, and American Society of Clinical Oncology.

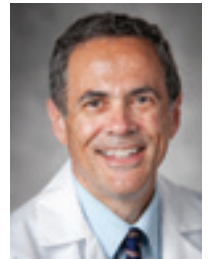
**James Edward Sarn, MD'73**, died on July 22. He was 79. After graduating from the United States Military Academy at West Point in 1963, he was posted with the U.S. Army's 82nd Airborne Division in the Dominican Republic. Following one tour in Vietnam, he returned to attend Duke University School of Medicine for his medical degree and the University of North Carolina at Chapel Hill for his Master of Public Health degree. His 30-year career in public health included posts with the United States Agency for International Development in Nicaragua; Washington, D.C.; Sudan; Egypt; Kenya; Afghanistan; and Vietnam.

**Stephanie Telesetsky Young, AB'86, MD'90, HS'90-'91, HS'95**, died on March 14. She was 54. She attended Duke University as an Angier B. Duke merit scholar, where she studied Spanish and zoology and competed on the Blue Devils' fencing team, graduating summa cum laude. She enlisted as an ensign in the United States Navy Medical Corps and attended Duke University School of Medicine, where she was inducted into the Alpha Omega Alpha Medical Honor Society. After completing her residency in radiology, she attained the rank of commander in the U.S. Navy and served at naval hospitals in Bethesda, Maryland; Naples, Italy; and Yokosuka, Japan. She served in private practice in Concord, New Hampshire; Florence, Oregon; and Binghamton, New York. She was a fellow in musculoskeletal imaging at the University of Maryland, and in 2012 she became chief of the Imaging Center at the Veteran Affairs Hospital in Martinsburg, West Virginia.

### FACULTY

**Arthur Chris Christakos, MD, AB'51, P'86, P'88, GP'21**, died on June 5. He was 89. He received his MD from the Medical College of South Carolina and then returned to Duke to serve a rotating internship and a pathology residency. After serving at the U.S. Naval Hospital in Beaufort, South Carolina, he was a resident in obstetrics and gynecology at the Hospital of the Medical College of South Carolina and completed a fellowship in cytogenetics at Sloan Hospital for Women at Columbia Presbyterian Medical Center in New York City. From 1963 to 1992, he served on the faculty of the Department of Obstetrics and Gynecology and the Department of Community and Family Medicine at Duke University School of Medicine. He established an amniocentesis program for prenatal fetal diagnoses at Duke University Medical Center, and from 1978 to 1987 he was dean of undergraduate medical education at Duke. In 1992, he was named professor emeritus of obstetrics and gynecology.

**Neil Spector, MD**, died on June 14. He was 63. He was the Sandra Coates Associate Professor in the Department of Medicine and associate professor of pharmacology and cancer biology. A nationally recognized physician-scientist, he joined the faculty at Duke University School of Medicine in 2006 after serving as director of exploratory medical sciences-oncology at GlaxoSmithKline and as adjunct associate professor of medicine in the Division of Hematology/Oncology at the University of North Carolina at Chapel Hill. He served in numerous roles in the Duke



Cancer Institute, including associate director for translational research, director of the Developmental Therapeutics Program, and associate co-director of clinical research with the breast cancer disease group. He was selected by his peers as a Komen Research Scholar. In 2015 he published *Gone in a Heartbeat: A Physician's Search for True Healing*, chronicling his battle with Lyme disease, which led to heart damage requiring a heart transplant, which he received at Duke in 2009.

**Catherine M. Wilfert, MD**, died on September 13, 2020. She was 84. She was a professor of pediatrics and microbiology and chief of the Division of Pediatric Infectious Diseases in the Department of Pediatrics at Duke University School of Medicine for many years. She graduated with distinction from Stanford University

and summa cum laude from Harvard Medical School. She made seminal contributions to the treatment and prevention of HIV in infants, helping to develop treatments for children infected with HIV and leading efforts to prevent mother-to-child transmission of HIV. She served as scientific director of the Elizabeth Glaser Pediatric AIDS Foundation and was the second female president of the Infectious Diseases Society of America (IDSA). She was inducted into the National Academy of Medicine and received honors including the North Carolina Award for Science and the A. Henderson Award for Outstanding Contributions to Public Health from the IDSA and IDSA Foundation.

SOM **Magnify**

A closer look at the people of the Duke University School of Medicine and their inspiring stories  
[magnify.duke.edu](http://magnify.duke.edu)

**Duke's Long History of RNA-based Vaccine Development**

As researchers around the world race to build a vaccine that can protect people from COVID-19, many of the frontrunners entering the final stretch—including those developed by biotechnology companies Moderna



and BioNtech—are RNA-based vaccines. The earliest discoveries that resulted in the development of RNA vaccines actually took place at Duke University, and they happened in a surprising corner for such research—the School of Medicine's Department of Surgery.

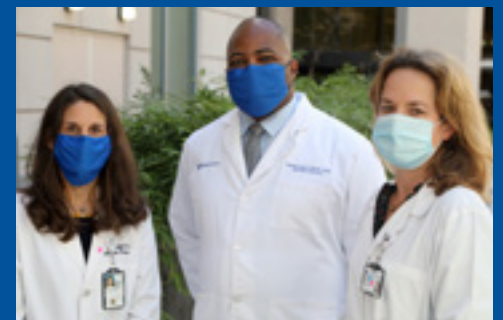


**The Right Environment**

New faculty recruit Opeyemi Olabise, MD, lost a childhood friend to kidney disease. Now, he is on a mission to revolutionize the prevention and treatment of kidney disease by studying a gene mutation, APOL1, associated with the disease. Twelve percent of African Americans have two variants of the APOL1 gene, which can be traced back 6,000 years to a mutation in Africa that provided some protection against sleeping sickness, but also has harmful effects on the kidneys. Olabise said that the collaborative nature of basic and translational scientists at Duke has made it the perfect environment for studying this disease.

**Clinical Researchers Seek Ways to Lessen the Severity of COVID-19**

New studies at Duke will test treatments that could help people with COVID-19 recover faster and avoid being hospitalized, shortening the course of the illness and reducing the likelihood of people spreading the



virus to others. Participants in these studies will be people who have tested positive for COVID-19 recently and have symptoms but aren't sick enough to require hospitalization.

# COVID-19 Response Funds

As the COVID-19 outbreak continues in our state and around the world, teams throughout Duke's hospitals, clinics, and research labs are actively monitoring and responding to the pandemic in countless ways. Duke is mobilizing to care for patients with the highest quality medical care and is advancing understanding of the virus in order to develop treatments and preventions.

Gifts to the **COVID-19 Response Funds** will be used to address the needs of patients and caregivers impacted by COVID-19, to enhance our researchers' efforts to develop and test new tools to combat the virus, and to support emerging areas of greatest need.

You can designate your gift to any one or more of three areas:

- **Area of Greatest Need**
- **Care Support**
- **Research Support**

[giving.dukehealth.org/covid-19-support](https://giving.dukehealth.org/covid-19-support)



BILL SNEAD

Sarah P. Duke Gardens