



Weill Cornell Medicine's Reunion 2020 has been rescheduled to the fall of 2021, when we will celebrate milestone anniversaries for classes ending in 4, 5, 9, and 0. The health and well-being of our community and our alumni is Weill Cornell Medicine's top priority, and we applaud all of our alumni who are caring for people around the globe during this crisis.

Please contact the alumni office at alumni@med.cornell.edu for more information.

# weillcornellmedicine

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# Thank You

# We're Stronger Together

We applaud our community for coming together during this difficult time and supporting each other when the need was greatest.









The generous outpouring of gifts to support our front-line healthcare workers has been a true testament to the compassion and dedication of our friends, neighbors, and community members. From monetary donations to fund COVID-19 research, childcare for our front-line staff, and our emergency response efforts to in-kind gifts of personal protection equipment and iPads for telemedicine, this generosity arrived from all over the world, allowing us to provide outstanding patient care, begin crucial research, and support our staff, who have sacrificed so much with strength and grace. We thank all of you for being here for us, and for allowing us to be stronger together.



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Augustine M.K. Choi, MD
Dean of Weill Cornell Medicine

# The Lessons of COVID-19



The world looks very different now than it did just a few months ago. COVID-19 has upended life around the globe-most significantly and tragically, of course, for those who have died or lost loved ones to the virus. New York City has been the epicenter of the outbreak in the U.S., and I could not be prouder of how Weill Cornell Medicine has risen to this crisis on every level, especially its doctors, nurses, physician assistants, students, and others who work so tirelessly on the front lines. They illustrate the very best that our institution has to offer-compassion, innovation, and commitment to excellence in care—with the shared goal of advancing the fight against this terrible virus for patients here at home and beyond. Their heroism and incredible efforts underscore Weill Cornell Medicine's strength as an academic medical center, one that has aggressively and skillfully pivoted to address the immediate and continuing health challenges this unprecedented pandemic has created.

Yet as we persevere in this health crisis, my thoughts turn to how academic medicine can evolve to better tackle future pandemics and deadly disease. COVID-19 has made clear how we can improve medical education and training to better position society for the next global health crisis that—with COVID now a vivid reference point—feels more real than we might have been capable of imagining before this pandemic struck.

For many decades now, we have been lucky: technological innovations over the previous century and a half around sanitation and preventable disease have allowed much of the world's population to live long and largely healthy lives. Safe in the investments in public health by previous generations and the game-changing discoveries of the vaccine scientists of the mid-twentieth century, the biomedical enterprise has enjoyed the time, financial resources, and public support to make huge advances in chronic diseases such as heart disease, cancer, and HIV/AIDS, and to improve the quality of life for people with diabetes and other lifelong conditions. Medical education has corresponded accordingly: students train in the hospital, where they are exposed to the serious consequences of these conditions, and many go on to specialize in

disease areas, furthering advancements for patients who need care from experts in these disciplines.

Yet these trends have also meant that medical students and trainees spend little time in ambulatory settings developing primary care skills. As physicians were redeployed to care for the surge of COVID patients in our nation's hospitals, the need for doctors from all disciplines to understand the basics of medicine—including how to assess and care for patients with fever and cough—was never more apparent. So, too, was the urgency of additional public investment in disease prevention and research into infectious diseases caused by viruses like SARS, MERS, Ebola, and now SARS-CoV-2 that have always had the capability to derail human progress. In this new era, it is more crucial than ever that we encourage a robust primary care workforce as the foundation of our country's healthcare system, and for medical schools to expand student exposure to biomedical research and hands-on work in outpatient settings. These changes would strengthen the knowledge base and skill sets of all doctors-to-be, regardless of specialty, especially at times when all hands are needed to help combat new and dangerous illnesses like COVID-19.

Those of us in academic medicine must also adopt a more multidisciplinary approach to teaching students about disease. The expertise required to effectively care for COVID patients extends to a wide range of specialties—infectious disease, critical care, anesthesiology, emergency medicine, hematology, neurology, rehabilitative medicine, and psychiatry among them. Physicians in each of these fields and others must have the educational and experiential foundation to collaborate during redeployments of the kind that COVID necessitated, and surely this team approach can benefit the numerous healthcare challenges we tackle daily, in which patient health and wellbeing is maximized when experts of various kinds work together.

At Weill Cornell Medicine, we have already laid the groundwork for some of the changes that are needed. In my opinion, the physicians who were best prepared to respond to the unusual and unexpected challenges the disease presented were those with a strong foundation in research. Already, our students participate in an Areas of Concentration program that provides a grounding in scientific investigation, which gives them the opportunity to immerse themselves in studies that grapple with some of our most pressing health problems, including global health and infectious disease. Even if an aspiring physician does not ultimately pursue research as a career, such endeavors give our best and brightest the foundation in inquiry that today's doctors need to respond to new questions in medicine like those COVID has posed to us. And while declining numbers of medical school graduates nationally are pursuing careers in primary care, large numbers of our own graduates do enter internal medicine, pediatrics, family medicine, or obstetrics and gynecology. Some forty members of this year's graduating class have begun residencies in these areas, continuing a longtime trend among our graduates toward careers in these disciplines.

The pandemic has proven, too, that telemedicine has enormous clinical benefits, increasing access to medical care for those who are unable or unwilling to leave their homes to visit a doctor's office or the emergency room. Telemedicine is an innovation that has been vital for some of our most vulnerable populations during this crisis, and we know it will play a huge part in helping to care for patients with other illnesses going forward. Weill Cornell has long been at the forefront of telemedicine, with our Department of Emergency Medicine's Center for Virtual Care having successfully trained hundreds of its healthcare practitioners and medical students in its remote program well before the emergence of COVID-19. We will continue to teach those skills and techniques and expand delivery of virtual care across our health system.

More broadly, though, we and other medical schools across the country must look at how we can deepen telemedicine training for our students. Future doctors must know how to use mobile and web-based technology to examine and diagnose patients and make treatment-related decisions, of course. Yet it is also important that they learn the best ways to achieve a "web-side" manner that allows them to establish a solid doctor-patient relationship in a remote setting, one that hopefully

conveys the same concern, kindness, and depth of knowledge as when they meet with patients face to face. In addition, telehealth must be made more accessible to people of color, who are less likely to use virtual visits than the general population.

Indeed, as we note in these pages, we are witnessing a pandemic within a pandemic, in which the effects of racism on housing, labor, and socioeconomic status are bearing out in devastating and heartbreaking disparities in COVID infection and severity among people who are Black or Latino. These populations have been hit particularly hard by the virus: Black and Latino New Yorkers were

twice as likely as white New Yorkers to die of COVID-19 in the city's initial reckoning with the disease, and nationally Blacks are five times as likely as whites to be hospitalized, while Hispanics are four times as likely. Equalizing access to telemedicine is one strategy to help address health disparities in these communi-

ties—whether in COVID-19 cases or other serious illnesses. But as these trends in COVID—followed by the groundswell of protest across the country over racist policing—have shown us, we also must dismantle the structural inequalities that put Black and Latino people at numerous disadvantages in health and other measures of wellbeing. (I elaborate further on this historic moment in the racial justice movement and how we must respond to it as a leader in academic medicine on page 13.)

I firmly believe that we will emerge from this battle wiser and stronger than before, and that our COVID-related work at Weill Cornell Medicine will only enhance the ways we approach research, patient care, and education down the road. As we move forward, however, we must reflect on the lessons COVID has taught us, so we can do everything possible to ensure that the next generation of physician-scientists is able to mobilize as quickly and effectively as we did against any impending health crisis that endangers our community, our nation, and the world.

As we persevere in this health crisis, my thoughts turn to how academic medicine can evolve to better tackle future pandemics and deadly disease.

## 'A Herculean Effort'

### Weill Cornell Medicine Battles COVID-19



**WORKING TOGETHER:** Staff at a cough, cold, and fever clinic share a message of unity. Opposite page: A tent erected outside the emergency department allowed patients to be evaluated without entering the main building.

As a leading healthcare and research institution located at the epicenter of the COVID-19 pandemic in America, Weill Cornell Medicine has been at the forefront not only of New York City's medical response, but of the global endeavor to understand and eradicate the virus. The all-out effort to combat COVID has touched—even transformed—all three facets of WCM's mission: to care, discover, and teach.

While most organizations and businesses in the city closed in late March in response to **Governor Andrew Cuomo**'s executive order, WCM's essential work went on, as the institution leveraged its skills and expertise in the fight against the worst infectious disease threat the world has seen in a century. "We will continue to face the challenges posed by this pandemic with determination and resolve, in close coordination with our partners NewYork-Presbyterian and Columbia," says Dean **Augustine M.K. Choi, MD**. "Our mission, simply put, is to improve human health."

On the education front, WCM—like so many schools and colleges around the world—shifted to remote instruction where possible for the second half of spring semester. And it joined numerous medical schools in the city and elsewhere in giving its fourth-year students the option to have their degrees conferred in April, allowing them to contribute to the COVID-19 effort by working for healthcare providers before beginning internship and residency. Sixty-eight new MDs—more than half of the class—chose to do so, working remotely in roles that didn't involve

in-person contact with patients but freed up other staff for direct clinical care. The all-class Commencement ceremony, traditionally a gala event in Carnegie Hall, was held via videoconference on the original date in late May—complete with a virtual recitation of the Hippocratic Oath and a special message from Anthony Fauci, MD '66, director of the National Institute of Allergy and Infectious Diseases and a member of the White House Coronavirus Task Force—and WCM's branch in Qatar also celebrated its new MDs remotely.

To focus all possible resources on COVID-related investigations, WCM ramped down its non-essential laboratory work. It launched a comprehensive effort to study the virus through clinical, translational, and basic research—exploring it and its impacts on the human body from a wide variety of angles. Researchers are striving to improve diagnostics, understand the virus's short- and long-term effects, identify new anti-

viral drugs, test existing drugs in clinical trials, and more. WCM has created a COVID-19 biobank to collect, process, store, and share biological specimens, and a task force to guide COVID-related research at WCM has been established. "It has been very uplifting to see how many Weill Cornell Medicine scientists have wanted to contribute to fighting this disease," says <code>Hugh Hemmings</code>, <code>MD</code>, <code>PhD</code>, senior associate dean for research, who is co-leading the task force with <code>Rainu Kaushal</code>, <code>MD</code>, senior associate dean for clinical research. "They have applied their diverse skills to developing new approaches to treating and diagnosing coronavirus, and to positioning us to prevent or to be able to respond more effectively to pandemics like this one."

### **Mobilizing Clinical Care**

To address urgent needs in patient care and other areas, WCM redeployed many faculty and staff, building the clinical workforce in such areas as telemedicine, emergency care, and hospital medicine. Like medical centers nationwide, it canceled non-urgent surgeries and procedures and either postponed non-urgent outpatient visits or conducted them remotely.

In the space of a week or so, NewYork-Presbyterian/Weill Cornell Medical Center increased its intensive care capacity by nearly a hundred beds. In what Dean Choi called "a Herculean effort," ORs and recovery rooms were converted into ICUs, staffed by teams of physicians and nurses redeployed from

other departments. The hospital not only obtained additional ventilators to assist many of the sickest patients, but instituted a pioneering technique to use one ventilator to support two patients. Since the infectious nature of COVID-19 prevents bedside visits by friends and family, staff became creative: patients were able to connect with loved ones remotely via iPads and other devices. "Every day we witness the remarkable strength of our community," Dean Choi said in early April. "Our committed physicians, researchers, educators, and staff are facing the COVID-19 pandemic with ingenuity, teamwork, and resolve—exemplifying the very best of Weill Cornell Medicine."

The hospital built a tent outside the emergency department, allowing cli-

nicians to evaluate patients with respiratory symptoms while keeping them out of the building unless they required admission. WCM also opened several cough, cold, and fever clinics—outpatient sites exclusively for people with respiratory symptoms—that reduce the likelihood of transmission to staff and fellow patients in the waiting rooms of outpatient practices and the ED. And it established a COVID survivors unit—a facility to maximize the recovery of inpatients previously on mechanical ventilators that coordinates rehabilitative services from many departments and divisions.

Throughout the COVID crisis, WCM has both aided fellow institutions with patient care and gotten support from peers. The medical center accepted transfers of seriously ill COVID-19 patients from hospitals in the city that were becoming

overwhelmed; meanwhile, Hospital for Special Surgery (HSS) accepted stable non-COVID patients from NewYork-Presbyterian/Weill Cornell, freeing up beds and manpower. Doctors from HSS received temporary faculty appointments at WCM to join its healthcare workforce on an emergency basis, and medical staff from Cayuga Heath in Ithaca spent a month working at NewYork-Presbyterian. To aid front-line clinicians working extended hours, WCM created

temporary "touchdown" spaces for them to rest and recuperate, and provided some temporary staff housing off-campus. "Members of the Weill Cornell Medicine community have been nothing short of heroic in their efforts during this unprecedented time," says Dean Choi. "Many have been stretched already in their work and called upon to take on new duties and responsibilities. The COVID-19 pandemic is truly an 'all hands on deck' situation."

### **Clinical Trials Launched**

Physician-scientists at WCM and NewYork-Presbyterian rapidly mobilized to test candidate drugs in clinical trials—arranging



them in days rather than months. One trial tested remdesivir, an experimental drug designed to interfere with the virus's ability to replicate in cells. NewYork-Presbyterian/Weill Cornell participated in a multi-center trial—led by **Kristen Marks**, **MD**, **MS** '09, associate professor of medicine in the Division of Infectious Diseases and an infectious disease specialist at the medical center—that investigated two durations of remdesivir treatment of five or ten days. Preliminary results showed similar clinical improvement with both durations, with further results expected. This and other studies led the FDA to authorize remdesivir for emergency use in hospitalized patients with severe COVID-19.

A second trial—led by Marshall Glesby, MD, PhD, associate chief of the Division of Infectious Diseases and director of the Cornell HIV Clinical Trials Unit at WCM and an infectious dis-

ease specialist at NewYork-Presbyterian/ Weill Cornell—is testing sarilumab, a drug designed to prevent the dangerous complications that result when the body's immune system goes into overdrive. Sarilumab was developed to treat rheumatoid arthritis, in which the immune system attacks the body's joints and organs. Preliminary results suggest that the drug is not effective in hospitalized patients with severe, but not critical, illness. "Patients with severe illness will no

longer be enrolled," says Glesby, also a professor of medicine and of healthcare policy and research, "and the trial will now focus on patients who require significant oxygen supplementation, including those on ventilators, whose other organs are functioning reasonably well."

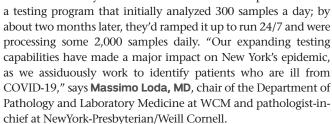
Another trial is investigating whether blood plasma taken from patients who have successfully recovered from COVID-19 can aid those who are currently infected. Pathologists at WCM and NewYork-Presbyterian/Weill Cornell are participating in an international, multi-site clinical trial that will investigate whether this experimental therapy can speed up recovery and improve outcomes.

'MEMBERS OF THE WEILL
CORNELL MEDICINE
COMMUNITY HAVE BEEN
NOTHING SHORT OF HEROIC,'

SAYS DEAN CHOI.

### **Testing Ramped Up**

In March, as COVID-19 gained a foothold in the city, WCM and NewYork-Presbyterian faced a daunting task: quickly establishing a reliable diagnostic testing program. The effort required ascertaining whether new commercial tests accurately diagnose the coronavirus, while expanding the operations and hours of pathology labs to handle an influx of samples. WCM's medical laboratory directors and scientists developed



The effort was led by **Melissa Cushing**, **MD**, director of clinical laboratories and vice chair for laboratory medicine in the Department of Pathology and Laboratory Medicine at WCM and NewYork-Presbyterian/Weill Cornell and a professor of pathology and laboratory medicine at WCM. She and her team ultimately validated several testing platforms that use a variety of reagents from different suppliers—a process that typically takes six or seven months. They include a method that produces results within an hour or two; it has been used to assess patients who come to NewYork-Presbyterian's emergency department, as well as women in labor and preoperative patients.

Pathology leaders have since turned their attention to antibody tests that reveal whether people have been exposed to COVID-19 by detecting an immune response. WCM has increased capacity to several thousand per day, with the aim of offering testing to healthcare workers, patients, and the general public. Says Loda: "People may feel more comfortable being around family—especially if their loved ones have a COVID risk factor—if they know they've already been infected and developed antibodies."

### **Gifts Support COVID Efforts**

Donors from as far away as Europe, Asia, and the Middle East have contributed more than \$18.7 million to aid Weill Cornell Medicine's efforts to procure medical supplies, feed healthcare workers, conduct research, and ensure an uninterrupted flow of essential services. Additionally, donors have arranged contributions of large quantities of face masks, respirators, other personal protective equipment (PPE), and even food. "The kindness, decency, and generosity evident everywhere in our hard-hit community is just overwhelming," says Dean Choi. "Thanks to our donors, Weill Cornell's front-line staff are able to face the pandemic with teamwork and resolve—exemplifying the very best of the Weill Cornell family."

Members of the Board of Overseers responded to the COVID-19 crisis with more than \$10 million in donations, highlighted by a \$5 million gift from Overseer **Maurice Greenberg** and his wife, **Corinne Greenberg**, which will be used to support COVID-19 research at WCM. The Partners of Citadel and Citadel Securities—led by CEO and longtime Weill Cornell benefactor **Kenneth Griffin**—also made a \$2 million gift to WCM to develop new





approaches to test and protect people from the novel coronavirus. The outpouring of generosity enabled WCM to allocate \$1 million to a relief fund for employees in need of support due to extraordinary financial hardship directly related to the COVID-19 pandemic. "Our community has truly come together to show its support for the doctors, nurses, and staff of Weill Cornell, who are working tirelessly to save lives," says <code>Jessica Bibliowicz</code>, chairman of the Board of Overseers. "Their gifts will ensure that we emerge from this unprecedented crisis stronger than ever."

### **Ithaca Medical Staffers Support WCM**

More than fifty doctors, nurses, and other healthcare professionals from Ithaca spent a month working at NewYork-Presbyterian/Weill Cornell to aid in the care of COVID-19 patients. The team from Cayuga Health—which operates Cayuga Medical Center, the largest healthcare provider serving the Ithaca campus—arrived April 8 by Cornell Campus-to-Campus bus. "This sharing of support across Cayuga Health, Weill Cornell Medicine, NewYork-Presbyterian, and Cornell's Ithaca campus exemplifies the connectedness of our communities," says Cornell President Martha E. Pollack.

With the Ithaca area having seen a relatively low number of COVID cases—and with outpatient and elective appointments canceled—the center's staff was available to redeploy to the city. Paired with teams from WCM and NewYork-Presbyterian, they spent several days learning the institutions' standard practices and protocols; once acclimated, they were assigned to an expansion ICU serving approximately thirty to fifty of the sickest COVID patients. Says Dean Choi: "We are profoundly grateful to Cayuga Health for its assistance in our hour of need."



**HELPING THE HELPERS:** Onlookers cheer a Cornell bus filled with Ithaca-area medical staff as it heads to New York City. Top: Chalked words of support.

# PHOTOS: SAFFORD, JOHN ABBOTT; ELEMENTO AND CHEN, TRAVIS CURRY; GULICK, TABITHA PITRE

# Research: WCM Experts Tackle COVID-19

At WCM, researchers are playing a critical role in broadening understanding of COVID-19. These efforts include:

UNDERSTANDING RACIAL AND ETHNIC DISPARITIES: In what has been called a "pandemic within the pandemic," people of color have been hit especially hard by COVID-19. Reasons for this disparity, experts say, include the fact that they more typically hold jobs designated as essential during the lockdown and that they are more likely to suffer from underlying medical conditions that put them at increased risk for death or severe illness from COVID. Monika Safford, MD '86, chief of the division of



MONIKA SAFFORD.

general internal medicine at WCM and NewYork-Presbyterian/Weill Cornell and director of the Cornell Center for Health Equity, is working with a group of medical students to create a continuously updated registry of COVID patients at NewYork-Presbyterian locations on the Upper East Side and in Lower Manhattan, Queens, and Brooklyn. "This is a seminal effort that will help to inform how to

take care of these patients in the best possible way," says Safford, whose team has already published its first report in the New England Journal of Medicine. One of their key findings has been the role of obesity as a risk factor for more severe disease. They are now developing models to help clinicians recognize patients who may be stable initially but are at high risk of deterioration.

TRACKING THE OUTBREAK: In the absence of large-scale testing for COVID-19, researchers are looking for other clues that the

virus is present in a community. To rapidly acquire that information, Olivier Elemento, PhD, director of the Caryl and Israel Englander Institute for Precision Medicine and a professor of physiology and biophysics at WCM, and colleagues are asking Americans to participate in an online survey in which they submit symptoms and information such as travel patterns and exposures to infected



individuals. The team is also gathering state public health data to determine if the survey information is predictive of the reported COVID-19 cases. "The hope is that we can identify which counties are poised for potential outbreaks earlier," Elemento says.

GUIDELINES FOR TREATMENT: Roy Gulick, MD, chief of the Division of Infectious Diseases and the Rochelle Belfer Professor in Medicine, is co-chairing an NIH panel devoted to develop-



ROY GULICK, MD

ing treatment guidelines for COVID-19. Intended for healthcare providers, the guidelines are based on published and preliminary data as well as the clinical expertise of the panelists, many of whom are clinicians on the front lines of the pandemic. The guidelines—which are posted on the NIH website and will be updated as new data emergesconsider two broad categories of COVID-19 ther-

apies: antivirals, which may target the coronavirus directly, and host modifiers and immune-based therapies, which may influence the immune response to the virus. The document provides background information about each agent including clinical data about its use, ongoing trials, and known interactions with other drugs. It also outlines best practices for managing patients at different stages of infection, such as inpatients with critical disease or severe illness and outpatients who are either asymptomatic or who have mild-to-moderate symptoms and are self-isolating.

'HERO' REGISTRY: NewYork-Presbyterian and WCM are participating in a multi-institution initiative to understand the experience of healthcare workers during the pandemic and keep them as safe as possible. Dubbed the Healthcare Worker Exposure Response & Outcomes (HERO) Registry, it crowdsources data like response strategies and clinical outcomes. The registry is open to anyone who works in a healthcare setting including nurses, therapists, physicians, emergency responders, and food service workers.

MATHEMATICAL MODELING: Using a tool he created, Nathaniel Hupert, MD, associate professor of population health sciences, has been making forecasts of the potential impact of COVID-19 on local and regional healthcare systems. The data helps state and city leaders answer questions like when cases of the disease will peak in hospitals and what resources will be needed to successfully care for those patients. Using a different method, he is also modeling how the eventual lifting of restrictions on social interaction will influence disease spread and subsequent demands on the healthcare system. "What we hope to achieve with this work is not only to better prepare hospitals to care for the oncoming waves of patients affected by this pandemic," he says, "but also help health planners and political leaders find a way out of the need for social distancing and other lockdown procedures in a way that maximally sustains the health of populations here in the United States and around the world."

DRUG SCREENING: WCM investigators have joined forces to create an improved drug screening platform. Robert Schwartz, MD, PhD, assistant professor of medicine in the Division of Gastroenterology and Hepatology at WCM and a hepatologist at NewYork-Presbyterian/Weill Cornell, and Shuibing Chen, PhD,

associate professor of chemical biology in surgery and the Kilts Family Associate Professor of Surgery, screened many tissue types and found that lung, colon, pancreas, and liver tissue are easily infected by COVID. They teamed up with Todd Evans, PhD, associate dean for research and the Peter I. Pressman, MD, Professor in Surgery, using colon tissue infected with an inactivated viral particle as



SHUIBING CHEN,

a method for screening 1,200 FDA-approved drugs. They found that several blocked the particle from entering the cell; then, with colleagues at Icahn School of Medicine at Mount Sinai, they verified that the drugs also block infection by the active coronavirus. "Since the drugs we find using this platform are already approved by the FDA for use in patients," Evans says, "it may be relatively easy to repurpose them for clinical trials with COVID-19 patients."

# **Senior Leadership Appointments**

### **Senior Associate Dean for Medical Education**



The founding director of WCM's clinical skills center, **Yoon Kang, MD**, has been on the WCM faculty since 2003, with evolving roles in teaching and mentoring, curriculum development, program evaluation, and administration. She led the design process for the Margaret and Ian Smith Clinical Skills Center—a state-of-the-art patient simulator suite where students can practice

clinical skills on mannequins or "treat" trained actors playing patients in recreated clinical scenarios—which she continues to direct. Kang's core academic interests are in simulation and technology-based education innovation; she is actively engaged in medical education at a national level. Also the Richard P. Cohen, MD, Associate Professor of Medical Education, Kang most recently served as acting senior associate dean for education.

### **Senior Associate Dean for Clinical Research**



Rainu Kaushal, MD, chair of the Department of Population Health Sciences, has been appointed senior associate dean for clinical research. In her new role, Kaushal will lead WCM's clinical research enterprise, which encompasses scientific studies that involve a human component and drives the experimental application and comparative investigations of new medicines, technol-

ogies, interventions, and healthcare delivery models to patients. The newly created Office of the Senior Associate Dean for Clinical Research, which she now directs, will unify and oversee a number of key organizational units—such as enrolling patients and ensuring that studies comply with federal laws and regulations—that provide pivotal support to clinical research. Kaushal will also lead collaborative efforts between WCM and Cornell Tech; she will drive new professional connections between investigators at the two institutions to advance technological innovations that may enhance clinical care, as well as strengthen educational opportunities that focus on the intersection of healthcare and technology.

### **Senior Associate Dean for Faculty**



A physician-scientist with expertise in pediatric hematology and vascular cell biology, **Katherine Hajjar, MD**, leads the institution's Office of Faculty, which focuses on all aspects of faculty advancement and under whose auspices the Offices of Faculty Affairs and Faculty Development operate. Hajjar joined the faculty in 1984 as an assistant professor of pediatrics and of pediatrics in

medicine, rising to the level of professor in 1995. She has since served in many leadership roles including division chief in pediatric hematology-oncology, chair of cell and developmental biology, associate dean for faculty development, and, currently, vice chair for research in the Department of Pediatrics. As a physician-scientist she focuses her research on the molecular basis of the process that prevents harmful blood clots from developing in the body, called fibrinolysis.

### Senior Associate Dean for International Affairs and Affiliations



WCM has established a new Office of International Affairs that will unify the institution's portfolio of international activities and strategically plan future international collaborations. **Michael Stewart, MD**, has been appointed senior associate dean and is leading both the Office of International Affairs and the Office of Affiliations, which manages affiliations with academic medi-

cal centers and healthcare organizations nationwide. The Office of International Affairs will serve as the organizational hub and entry point for all current global health and international collaborations. "Our goal is to create a front door for people inquiring about our exceptionally strong portfolio of international activities, as well as those who want to establish new collaborations with us," says Stewart, who is also chairman of the Department of Otolaryngology–Head and Neck Surgery at WCM and otolaryngologist-in-chief at NewYork-Presbyterian/Weill Cornell.

### TIP OF THE CAP...

**Elaine Barfield, MD**, associate professor of pediatrics and a pediatric gastroenterologist at NewYork-Presbyterian/Weill Cornell, elected a fellow of the New York Academy of Medicine.

**Edgar Figueroa, MD '00**, director of student health and an associate professor of family medicine, awarded the Degree of Fellow from the American Academy of Family Physicians.

**Shari Lipner, MD, PhD**, associate professor of clinical dermatology and a dermatologist at

NewYork-Presbyterian/Weill Cornell, named president of the Dermatologic Society of Greater New York, one of the nation's largest regional dermatologic societies.

Carl Nathan, MD, chairman of microbiology and immunology and the R.A. Rees Pritchett Professor of Microbiology, winner of the Sanofi–Institut Pasteur Senior International Scientist Award for Biomedical Research in Microbiology and Infection. It carries a €150,000 cash prize in support of his lab.

**Crina Nimigean, PhD**, professor of physiology and biophysics in anesthesiology, elected president of the Society of General Physiologists.

Rache Simmons, MD, associate dean for diversity and inclusion, the Anne K. and Edwin C. Weiskopf Professor of Surgical Oncology, and a professor of surgery at WCM and a breast surgeon at NewYork-Presbyterian/ Weill Cornell, named one of Crain's inaugural Notable Women in Talent Resources in the greater New York City area.



**HIGH HONOR:** Barbara Hempstead, MD, PhD (second from right), at the Weill Award ceremony with (from left) Joan and Sanford Weill and Dean Choi

### **Hempstead Wins Weill Award**

Barbara Hempstead, MD, PhD, dean of the Weill Cornell Graduate School of Medical Sciences and the O. Wayne Isom Professor of Medicine, has been honored with WCM's Joan and Sanford I. Weill Exemplary Achievement Award. A distinguished hematologist, neuroscientist, and administrator, Hempstead is a leading force in academic medicine whose decades-long career at WCM has spanned research, patient care, and education. "Barb's career trajectory is the epitome of what we aspire to in academic medicine—to achieve excellence in three domains: patient care, research, and education," says Dean Choi. "And lucky for us, she's chosen Weill Cornell Medicine as the place to share her talents." Established in 2018 to mark the twentieth anniversary of the institution's renaming in honor of its foremost benefactors, the award recognizes outstanding faculty whose transformational work enhances health and healthcare worldwide. Hempstead received it at a celebration in early March.

### FROM THE BENCH

### **Second Strokes in African Americans**



that African Americans are disproportionately likely to suffer stroke. Now, investigators have found that for Black patients, the short-term risk of a second stroke is higher than

Researchers have long known

HOOMAN KAMEL, MD for white patients. A study in JAMA Neurology that re-analyzed the results of a large stroke prevention trial found that African Americans were about 60 percent more likely to suffer a new ischemic stroke within ninety days of an initial, minor one. Differences in risk factors—such as higher blood pressure or lower adherence to medications—did not explain the increase. The lead author was **Hooman Kamel**, **MD**, chief of the Division of Neurocritical Care, an associate professor of neurology, and an associate professor of neuroscience in the Feil Family Brain and Mind Research Institute.

### **Asthma Genetics Explored**

A problem with the production of cellular building blocks called sphingolipids may explain why children with certain genetic risk factors develop asthma. In a previous investigation, teams led by Stefan Worgall, MD, PhD, chief of the Division of Pediatric Pulmonology, Allergy, and Immunology at WCM and NewYork-Presbyterian/Weill Cornell, and Tilla Worgall, MD, associate professor of pathology and cell biology at Columbia University Vagelos College of Physicians and Surgeons, showed that reduced production of sphingolipids causes hypersensitive airways in mice. Now, they've confirmed that asthmatic children who have genetic variations associated with an increased risk for the disease also produce fewer sphingolipids. The findings, in the Journal of Clinical Investigation, may spur new therapies that target this underlying problem.

### **New Insight into Organ Damage**

Shahin Rafii, MD, director of the Ansary Stem Cell Institute and chief of the Division of Regenerative Medicine, and colleagues have identified molecules that coordinate the development of specialized blood vessels in the kidney—findings that could lead to new strategies for repairing damaged organs. The team analyzed the genetics that underlie the development of blood vessels required for normal kidney function and showed that the cells of blood vessels play a critical role in shaping the growth of other types of cells in the kidney. The study, in *Nature Communications*, builds on an evolving view that the cells that line blood vessels are critical architects of tissue and organ development.

### **Disparities in Passing Surgery Boards**



HEATHER YEO, MD, MS '19 A study in JAMA Surgery has found racial and socioeconomic disparities in passing rates for the final exam for American Board of Surgery certification. Lead author **Heather Yeo, MD, MS '19**, associate professor of surgery at WCM and a surgeon

at NewYork-Presbyterian/Weill Cornell, and colleagues report that Hispanic trainees were about 40 percent as likely to succeed on the first try as non-Hispanics, despite having passed a qualifying exam. Additionally, they found that white trainees were nearly twice as likely to pass on the first try compared to non-whites (combined Hispanic, Black, and Asian), and that single women were more than ten times as likely to do so compared to married women with children. "Our results are not surprising, but they are concerning," says Yeo. "They show that we are failing to diversify our workforce all along the path."

### **Sex Differences in Dementia**



LI GAN, PHD

Immune cell activity in the brain differs between males and females in ways that may explain why some neurodegenerative diseases affect the sexes differently, finds a study in *Nature Neuroscience*. Senior author **Li Gan, PhD**, direc-

tor of the Helen and Robert Appel Alzheimer's Disease Research Institute and the Burton P. and Judith B. Resnick Distinguished Professor in Neurodegenerative Diseases in the Feil Family Brain and Mind Research Institute, and colleagues compared immune cells called microglia. The scientists showed that male and female mouse microglia differ markedly in the molecules that normally regulate gene activity and in their responses to deposits of tau protein, a feature of several neurodegenerative disorders.

### **Deep Dive into DNA and Cancer**

DNA changes that drive cancers have been illuminated in work by an international consortium. In six studies published in Nature and eighteen papers in affiliated journals, investigators reported results from analyses of more than 2,600 tumor samples across thirty-eight types of cancer. Unlike traditional cancer genetics projects, this was a "whole genome" approach designed to find drivers of cancer even outside protein-coding genes. The findings "should enable a more comprehensive understanding of how cancers arise and how they can be monitored and treated more effectively," says Ekta Khurana, PhD, an assistant professor of physiology and biophysics and of computational genomics in the HRH Prince Alwaleed Bin Talal Bin Abdulaziz Al-Saud Institute for Computational Biomedicine and a member of the Sandra and Edward Meyer Cancer Center.

# **Justice Now**

Supporting Black Lives Matter, Weill Cornell Medicine faculty, staff, and students add their voices to the fight against racism and inequality







**DEMANDING CHANGE:** At a protest on campus in early June (top right), participants reflected on social injustice, mourned the deaths of Black Americans, and united in solidarity against systemic racism. Above: Scenes from a "virtual rally" comprising dozens of students and faculty. During the online event, students advocated for social justice and called for an increase in diversity of teaching faculty as well as additional curricular content on the social determinants of health; Weill Cornell Medicine leaders responded by outlining initial recommendations for changes to address these issues, calling such action an institutional priority. Left: A demonstration in Times Square included members of the WCM community wearing white coats.

# 'We Stand in Solidarity'

### A SPECIAL MESSAGE FROM DEAN CHOI

The recent killings of George Floyd, Breonna Taylor, Tony McDade, David McAtee, and Rayshard Brooks by police officers have sparked a tinderbox of emotion across our nation. These atrocities are symbolic of the many injustices experienced by Black Americans in our society and reflect deeply entrenched systems of racism and discrimination that have plagued the United States since its inception.

At Weill Cornell Medicine, we join others around the world in condemning race-related violence and police brutality. Now, more than ever, we stand in solidarity with the Black and brown communities who face marginalization and microaggressions every single day. We must eradicate the most egregious forms of racial inequality that exist in our society and root out the unconscious biases that reside in our own hearts and minds. We reject all forms of racism or bigotry within our community.

As an academic medical institution, we also know firsthand how disparities in healthcare wreak havoc on populations of color, resulting in increased risk and worse outcomes for conditions ranging from hypertension to prostate cancer to stroke. We were heartbroken and outraged to watch George Floyd struggle for breath, after seeing African Americans die of COVID-19-related respiratory failure at 2.4 times the rate of whites. Going forward, we must seek new and better ways to improve access to high-quality care for patients of color, to enhance anti-racist training in medical and graduate education, and to encourage greater diversity within biomedical research. These imperatives are fundamental to our responsibilities as members of the healthcare and scientific workforce.

During the past several years that I have served as dean at Weill Cornell Medicine,

I have made it one of my top priorities to promote a stronger culture of diversity and inclusion at our institution. There is still much more work that we need to do, but I am proud of the inroads we have made so far. Although I know that a list of our recent accomplishments in diversity will do little to ease anyone's suffering, I do want to acknowledge that we, as a community, can work together to effect change, one step at a time.

At Weill Cornell Medicine, we commit to redoubling our efforts to strengthen our culture of diversity, inclusion, and belong-

ing. As initial measures, I am charging our administration to reexamine our practices and opportunities for the hiring, promotion, and elevation to leadership positions of our faculty and staff. We must ensure that our researchers, clinicians, educators, trainees, students, and employees have the opportunity to succeed

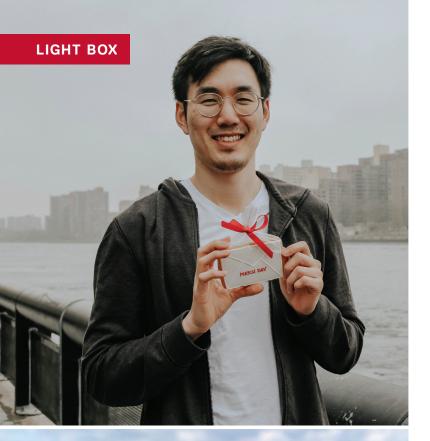
and to advance in their careers, no matter the color of their skin. We also commit to extending annual unconscious bias training to all faculty and staff.

We will continue our momentum, and meaningful change will happen at Weill Cornell Medicine. We ask members of our community to join others in the global academic and STEM communities to show support for Black academic and STEM professionals, as part of the #ShutDownAcademia and #ShutDownSTEM movements. Students, faculty, and staff are encouraged to unite with others around the world in calling for change and in reflecting on and discussing how we can best achieve it.

Together, we will work with our partners and with all of you to unite and heal from this pandemic of racism.

— Augustine M.K. Choi, MD

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TIMES THE RATE OF WHITES.'





# **A Virtual Match**

Traditionally, Match Day is a gala celebration complete with champagne toasts, as fourth-year students—surrounded by friends, family, and faculty—rip open envelopes to learn where they'll do their internship and residency training. But this year, due to the social distancing required by the COVID-19 pandemic, the event went virtual as Weill Cornell Medicine students received their news via e-mail and celebrated through social media, video chats, and more. "Although we are unable to gather and share in the celebration together," said Dean Augustine M.K. Choi, MD, "it is precisely times like these that demonstrate what a vital role the medical community plays in our society."

To add festivity to the virtual celebration, each fourth-year received a gift bag containing a congratulatory letter from Choi, a WCM Match Day 2020 T-shirt, cookies (shaped like stethoscopes, white coats, and envelopes), and a miniature bottle of champagne. Some students even managed to learn about their matches the old fashioned way, having friends intercept the e-mail and put the news in a sealed envelope for them to open. "These four years involved a lot of sacrifice and a lot of hard work, and it paid off—not only in my match, but in the great relationships I made," said one of those students, Karina Ruiz-Esteves, MD '20, who matched in internal medicine to her first choice, Massachusetts General Hospital.

This year's match was the largest on record, with about 40,000 graduating students competing for some 37,000 positions. Of the members of WCM's Class of 2020 who entered the match, 87 percent secured spots at institutions ranked in the top fifty by *U.S. News & World Report*. Forty-eight of the new physicians will stay in metro New York, twenty-five of them at NewYork-Presbyterian. "You are the future of medicine and the future of Weill Cornell," said Yoon Kang, MD, senior associate dean for medical education, "and we are so very proud of you."

INTERNSHIP BOUND: The Class of '20 grads who celebrated their matches remotely included (this page, from top) Paul Paik and Laura Soriano. Opposite page, clockwise from top right: William Shipman, Lisa Koenig, Angel Charles, Andrew Milewski, Lillye Anderson, Mary Cox (at left), and Joanna Gao.















# 'It Took Everything Out of Me'

Fred Pelzman, MD, shares his experiences on the front lines of COVID-19—as both physician and patient

A veteran primary care physician, internist Fred Pelzman, MD, can count on one hand the times he's stayed home sick in his quarter-century career. But they pale in comparison to his most recent illness—a bout of COVID-19 that laid him low for nearly two weeks in mid-March, just as the pandemic was escalating in New York City. Pelzman—the medical director of Weill Cornell Internal Medicine Associates, an associate professor of clinical medicine at Weill Cornell Medicine, and an associate attending physician at NewYork-Presbyterian/Weill Cornell Medical Center—reflected on his experience about two months after falling ill; his wife and daughter also had symptoms, and though they weren't tested, they're presumed to have had the virus as well.

y wife thinks she got me sick, and I think I got her sick. She was serving on a grand jury—in a room with dozens of people who had sniffles and coughs—and one afternoon she called me and said she'd been sent home with a fever and didn't feel well. My temperature was fine, but when I got home from work I felt like I needed to lie down, which was unusual for me. I woke up an hour and a half later with chills, whole body shaking, and a temperature of 101.8. I said, "I think I have COVID."

Our practice had started thinking about COVID and its potential impact—on the world, America, New York, our patients—when we started reading in early January about a novel infection coming out of China. We developed a "cough, cold, and fever clinic," where you isolate patients and go through the protocols of figuring out, "Could this be COVID? What tests do we need, what imaging, what labs, what swabs?" If you look at the timing of the pandemic, many practitioners around the world got sick at the beginning, as I did. But while we were preparing for COVID in the office, I could have caught the virus on the crosstown bus.

Those first few days were misery. I've had the flu twice, and I remember feeling like I wanted to die, but this had more intensity, a sense of being incredibly unwell.

All I could do was lie on the couch. I couldn't eat; I wasn't thirsty, but I forced myself to drink. Getting up and walking to the bathroom took all my energy. I could hardly sleep, and when I did I had terrible nightmares; my brain felt like it was vibrating. Everything hurt. Whatever inflammatory processes were going on inside my lungs were going on in every tissue in my body. Every joint was inflamed. I felt 150 years old. I clearly had pneumonia, and I could feel my chest aching and rattling.

Every time we physicians get sick, we take it both personally and clinically. I'd roll over on my side and say, "My hip hurts, I must have bursitis; that's the cytokines being released, and it's causing

inflammation and now I'm lying on it—ouch!" Or I'd say, "I've seen the data on the risk of kidney disease and COVID, so I need to drink more water." Since I wasn't eating or drinking much, at first I didn't notice that I'd lost my sense of smell. But one night after my fever broke, my daughter—who's been living with us since her college campus closed—was making dinner, and she asked me to open a jar of garlic and I said, "I think it's gone bad, it doesn't smell." And she said, "I can smell it from across the room." That was something I'd never experienced before. Even to this day, food doesn't have a lot of taste.

I got tested about a week after I got sick, and when it came back positive, it was a relief. If I'd gone through that and *then* I was going to maybe get COVID, I was not going to be happy. I'm hoping this is going to be my only time getting it; fingers crossed, the immunity is there. My wife had a milder version, and she bounced back quicker. We'd been taking precautions to protect our daughter, like wearing masks and cleaning surfaces and using separate towels, but one day she came out of her bedroom and said she had a sore throat, congestion, a cough, and a slight fever. Twenty-four hours later she was fine, so we're hoping that was the healthy twenty-one-year-old version of COVID-19.

After about ten days I thought I was ready to go back to work, and my wife suggested we go for a walk to see how I'd do. We walked around the block and it was exhausting; it took everything out of me and my oxygen was dropping. We now see this in a lot of COVID patients—they have this second-week dip where they seem to be doing OK and then things change. I took a couple more days at home to rest, then returned to work the following Monday after being cleared by our Workforce Health and Safety office.

'I've had the flu twice, and I remember feeling like I wanted to die, but this had more intensity, a sense of being incredibly unwell.'

I know I was lucky. I have colleagues and friends who had horrible high fevers for weeks; I had three days of fever, then a little low grade and then gone. The city has lost healthcare workers and others have been intubated and hospitalized for weeks. I escaped fairly unscathed; I haven't been able to exercise and I still get out of breath, but to the best of my knowledge I'm not much the worse for wear.

Going through this has likely affected me on levels I haven't been able to process; I'm sure it will rise up in different ways. I've thrown myself into my work. What we're dealing with in the outpatient world is an order of magnitude less than our inpatient colleagues—but we still see our patients and even our staff's loved





Fred Pelzman, MD

ones suffering mightily and sometimes dying. Hospital staff—every member of the team, from the people who greet you at the door to the ones caring for patients at the bedside in the ICU—are doing everything they can.

My experience with COVID, both as a physician and a patient, has made me want to become more engaged in fixing the health-care system in this country. It has made me think about the system as a whole—how it works and doesn't work; how we need to correct the inequities, improve access, and build a base of primary care; how if we really had a system that took good care of everybody, we might be better able to weather this kind of thing the next time it happens. I hope this crisis brings us together as a society. It's something we shouldn't politicize. We should ask, "What lessons can we learn? How can we be better?" But I think a great country will rise to that challenge.

I hope every single day I practice medicine makes me a better

doctor, but I do think that sharing the experience of illness informs you as a clinician and offers the opportunity to renew your vigor for this work. Suffering through it—and, even more, seeing the suffering of our community, our healthcare providers, the front-line workers, and all the people who've lost their jobs—makes me want to be a better doctor. But every patient I see does that, or I'm in the wrong business.

Some people have been surprised that I'm so willing to be public about my COVID diagnosis, but I'm happy to help this be seen as something serious and real. I hear people in some parts of the country still saying, "It's just the flu; we don't need to wear masks or stop working." I recognize that in some places that have had fewer cases, this pandemic may still seem far away. But these things are far away until they're suddenly on your doorstep—and I'm willing to shout that from the rooftops.  $\blacksquare$ 

— As told to Beth Saulnier

# **Reduction Plan**

Weill Cornell Medicine is a leader in performing a promising nonsurgical procedure for weight loss



**PERFECT FIT:** Karen Davidson is so happy with her results from endoscopic sleeve gastroplasty (ESG), she has recommended it to numerous friends and family.

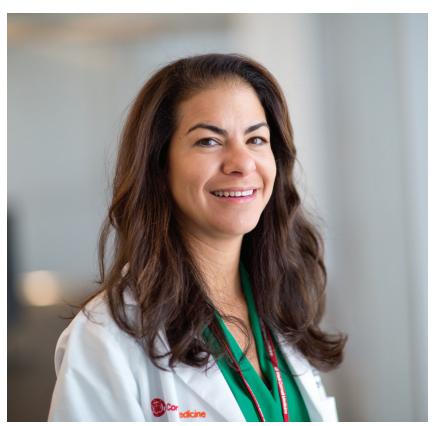
hen Karen Davidson was looking ahead to her sixtieth birthday about five years ago, she decided it was finally time for a different approach to weight loss. An executive in the beauty industry, the Long Island resident had tried myriad diets throughout her adult life, from scheduled fasts to eating nothing but grapefruit. "I've never been really obese, but I've always had that 'bigger than a curvy girl' look," she says. "And I had six children and left ten pounds on after every child."

Even medically supervised regimens hadn't worked for long. At five-foot-eight, Davidson hit a top weight of 214 pounds—for a body mass index (BMI) of 32.5, technically on the low end of obese. "I could diet and lose with the help of different drugs, but after three months of work to get off twenty pounds, they'd be back within three weeks—that yo-yo, up and down," she recalls. "I found myself at a weight I'd never been my whole life. It was like, 'Oh my goodness, what do I do?'"

Then one of her physicians—Louis Aronne, MD, a professor of clinical medicine, the Sanford I. Weill Professor of Metabolic Research, and director of the Comprehensive Weight Control Center at Weill Cornell Medicine—suggested something new. A colleague, gastroenterologist Reem Sharaiha, MD, was seeing highly promising results with a nonsurgical approach to reducing the size of the stomach—a same-day, outpatient procedure that leaves no scars and has minimal recovery time. Excited, Davidson called Sharaiha's office then and there. "Dr. Sharaiha was kind enough to squeeze me in on her lunch break," Davidson recalls. "She was a doll."

Davidson underwent the procedure just three weeks later—and the results have been so positive that she has not only recommended it to numerous friends and family, but become a go-to reference for other patients interested in having it. Known as endoscopic sleeve gastroplasty (ESG), the procedure entails accessing the stomach through the mouth, then using a suturing device guided by an endoscope. "You basically bring different parts of the stomach together like an accordion," explains Sharaiha, an associate professor of medicine and an attending gastroenterologist at NewYork-Presbyterian/Weill Cornell. "You then have a smaller stomach volume, so you eat less and lose weight."

WCM was one of the first places in New York State to offer ESG when Sharaiha began performing it in 2013. She has since done more than 500 of the procedures—becoming one of its leading practitioners and attracting patients from all over the country and the world. As she and Aronne both



Reem Sharaiha, MD

note, ESG can be highly beneficial for people in the 30 to 40 BMI range for whom diet and exercise hasn't worked—those whose weight puts them at risk of diseases like diabetes and sleep apnea but who either may not qualify for weight-loss surgery or are unwilling to undergo it. "There's an absolutely enormous need for these kinds of procedures," Aronne says. "The evidence is overwhelming that there are physical things that go on that make it difficult for people to lose weight. It's

not just a matter of willpower; it's because the weight-regulation pathways get damaged in the process of weight gain. That makes it hard to lose weight and maintain it."

Aronne and Sharaiha have done studies on patient outcomes—published in Endoscopy and Clinical Gastroenterology and Hepatology and presented at Digestive Disease

Week, a major gastroenterology conference—that have found that ESG is safe and effective, providing a sustained loss of 15 percent of a person's total body weight over a five-year period. For most patients, Sharaiha says, that translates to about forty to sixty pounds. "You also see improvement in cholesterol, glucose level, and blood pressure," says Sharaiha, who is currently collaborating with Aronne on studies aimed at predicting which patients will best respond to ESG. "It's not just a procedure where you lose weight. You also get improvement in these co-morbidities."

The procedure itself, Sharaiha says, is fairly easy on the patient. After Davidson had ESG, she recalls feeling under the weather for about a day and a half. "I've had root canals that were way worse," she says. "This was discomfort." She had to follow a prescribed diet for several weeks-starting with liquids, moving to soft foods, and eventually working up to things like raw vegetables. Within three months she'd lost fifty pounds; a year after ESG, feeling she'd begun to eat more, she went back to Sharaiha to have the sutures tightened (as is required in about a fifth of cases). Davidson now weighs about 168 pounds and wears a size six or eight, compared to the fourteen or sixteen she wore prior to ESG. Back then, she says, she'd typically go out to dinner and have every course, plus cocktails and bread; now, while she can eat any type of food she wants, she has to be cognizant of the much-reduced size of her stomach. "I don't have a hard

time maintaining my weight, because I eat correctly," she says. "I eat until I'm full and comfortable. If I want some dessert, I have it, but I need to have room for it; if I really want dessert, I'll only have an appetizer."

As she tells the people who call her for advice about whether they should choose the procedure, ESG isn't a cureall. It still requires effort from the patient—for example, by avoiding soft, calorie-dense foods (cake, for example) that

'You also see improvement in cholesterol, glucose level, and blood pressure,' says gastroenterologist Reem Sharaiha, MD. 'It's not just a procedure where you lose weight.'

can stymie weight loss even with a smaller stomach. It's a message Sharaiha also stresses. "It's a two-way partnership," she says. "I always tell them that I'm 5 or 10 percent of the journey and the rest is them, in terms of their motivation. It's a tool they can use to change their lifestyle, to try to eat better and exercise. But being part of their journey is so satisfying. Having them show you before-and-after pictures—they're so proud of themselves, and you're so happy that you've helped make it happen."

— Beth Saulnier

# Overcoming the Odds

Bishoy Faltas, MD, works to develop more effective therapies for bladder cancer, a disease that's notoriously hard to treat—and historically under-studied



ach year, 80,000 people in the U.S. are newly diagnosed with bladder cancer, and more than 17,000 lose their lives due to the disease. It ranks as the fourth most common type of cancer in men—but for decades, there was a paucity of research and little understanding of its unique biology, leaving clinicians with limited treatment options.

Bishoy Faltas, MD, is changing that. An assistant professor of medicine and of cell and developmental biology and the Gellert

Family–John P. Leonard, MD, Research Scholar at Weill Cornell Medicine, Faltas devoted his career to oncology after losing his father to throat cancer. After encountering patients with bladder cancer during his WCM oncology fellowship, he was inspired to focus his efforts on studying and treating the disease. "I started reading about what treatments were available—and other than chemotherapy, we didn't have any," recalls Faltas, also an attending oncologist at NewYork-Presbyterian/Weill Cornell. "I was shocked.

At that time, there had been no major therapeutic advances beyond chemotherapy for the past thirty years."

Now director of bladder cancer research at WCM's Englander Institute for Precision Medicine and head of a research lab, Faltas studies the disease to uncover its fundamental biological underpinnings—and ultimately develop more effective treatments. As he explains, he previously discovered that bladder cancer constantly mutates during chemotherapy, making it more challenging to treat. "What we're trying to understand now is, what mechanism drives these cancer cells to evolve to resist treatment?" he says. "If we understand this, we can stop cancer from mutating. That would potentially make all our treatments a lot more effective."

In one study, Faltas and his team analyzed one patient's tumor and discovered strikingly high levels of expression of HER2, a protein implicated in several types of cancer, particularly that of the breast. While nearly a third of bladder cancer patients have an amplified HER2 gene, clinical trials hadn't previously shown anti-HER2 drugs to be effective in treating it. However, Faltas and his colleagues had found that this patient's cancer had become "addicted" to extreme levels of HER2 protein—so they hypothesized that they could leverage this dependency to combat it. In addition to the standard chemotherapy, they treated her with trastuzumab, an anti-HER2 drug that has been used in breast cancer, and the combination proved highly successful. The woman has been in full remission for four years—a rare result for patients with metastatic bladder cancer.

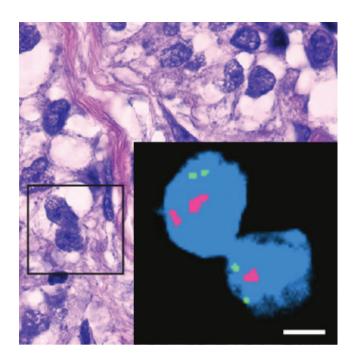
Faltas and his team made another important discovery in a study that was published in *Nature Communications* in July 2019. In that work, they explored the biological characteristics of upper urinary tract cancers, which affect the upper portion of the urothelium,

the tissue that lines the bladder and extends into the kidneys. They found that a gene called FGFR3 is exceptionally active in these cases—and that when they treated these cancer cells with a new FGFR3-inhibiting drug, they could trigger the immune system to marshal a defense. The FDA approved the

inhibitor drug in April, and Faltas and his colleagues are now using it to treat bladder cancer patients in clinical trials.

A physician-scientist who constantly moves from bench to bedside and back again, Faltas focuses his practice on patients with bladder and upper tract urothelial cancers. His clinical work, he says, helps him stay motivated during long hours in the lab. "I find that working with patients is grounding," he says. "It puts everything I do, including the lab research, in perspective. When we dig deep to understand a basic mechanism or basic biology, it's always with the patient in mind."

Those patients include sixty-nine-year-old Thia Breen, a retired president of a cosmetics company who was diagnosed with upper urinary tract cancer. The disease ultimately required the removal of both kidneys, leaving her reliant on dialysis to stay alive. After years of exercise and healthy eating—and absent any risk factors, such



**COMPLEX DISEASE:** The purplish image shows bladder cancer cells; the inset is a magnified view demonstrating that cancer cells can vary even within the same tumor. Generated using a special staining technique, the enlargement shows that one cancer cell has only a single copy (seen as a pink dot) of a gene called CDKN2A, which is associated with some cancers, while a neighboring cell has two.

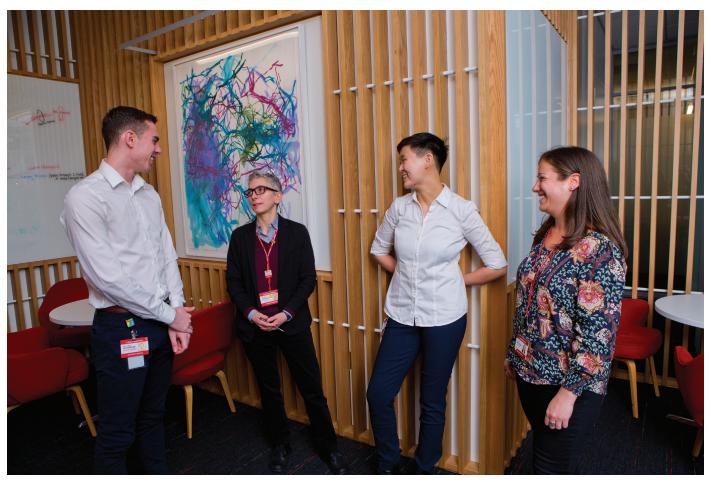
'I find that working with patients is grounding,' Faltas says. 'It puts everything I do, including the lab research, in perspective. When we dig deep to understand a basic mechanism or basic biology, it's always with the patient in mind.'

as smoking—the cancer diagnosis had come as a shock; she hadn't experienced any symptoms, and the malignancy was first suspected through a urine sample for her annual physical with her primary care physician. Breen, who lives in Manhattan with her wife, underwent several months of chemotherapy guided by Faltas, and her cancer is now in remission. Earlier this year, she received a kidney transplant—with her sister, who happened to be an ideal match, as the donor. During the long months of dialysis treatments, she'd been impatient for the green light from Faltas to get the transplant, but trusted his recommendation to wait until she'd been cancer-free for at least two years to maximize her odds of being cured. "The fact that he does this research is a relief to me because it means he's on top of the latest," she says. "I'm getting the most current advice with him, and that's very comforting."

— Emily Smith

# Safe Space

New student-run clinic offers free mental healthcare to New York's LGBTQ community



CARING TEAM (left to right): MD-PhD student Matthew Wickersham; Jessica Zonana, MD; MD-PhD student Constance Zhou; and Jessica Spellun, MD

GBTQ individuals battling mental health issues often confront a double stigma: prejudice and discrimination based on their sexual orientation or gender identity, as well as the negative bias that is frequently associated with mental illness. On top of that, studies have shown that when LGBTQ patients do go for treatment, they frequently feel uncomfortable or inadequately cared for. "Particularly with the transgender community, they often deal with everything from staff using incorrect names or pronouns to outright being refused care," says Jessica Spellun, MD, an assistant professor of clinical psychiatry at Weill Cornell Medicine. "Having those kinds of experiences makes it harder to reach out for help."

When Constance Zhou and Matthew Wickersham

came to WCM in fall 2017 as first-years in the Tri-Institutional MD-PhD Program, they were already familiar with this problem. Both identify as members of the LGBTQ community, and each have friends who had told them about difficulties they encountered when navigating the healthcare system. Some had seen clinicians who assumed they were straight, while others were routinely misgendered by providers. They'd also heard stories of people who developed alcohol or substance use issues as they struggled with their identities and encountered scorn when they eventually sought aid. Determined to do something to help, within weeks of meeting on campus Wickersham and Zhou started working to establish a free psychiatric clinic exclusively for LGBTQ patients. "There's such a large need," says Zhou,

"especially in New York City, where there are a lot of resources, but there are also so many people seeking mental health services."

Thanks to their efforts—and the help of about forty medical and MD-PhD students, trainees, and clinicians who volunteer their time (including Jessica Zonana, MD, an assistant professor of clinical psychiatry and the clinic's medical director, and Spellun, its mental health director)—the new facility opened its doors in March 2019. Dubbed the Weill Cornell Medicine Wellness Qlinic, it operates Wednesdays from 6 to 9 p.m. in donated space at NewYork-Presbyterian/Weill Cornell. It's the city's first student-run mental health clinic for the LGBTQ community, a group that has disproportionately higher rates of depression, anxiety, substance use, and intimate partner violence.

In fact, according to recent statistics from the National Alliance on Mental Illness, lesbian, gay, and bisexual adults are more than twice as likely as heterosexual adults to struggle with a mental health condition. Meanwhile, high school students who identify as lesbian, gay, or bisexual are almost five times as likely to attempt suicide than their heterosexual peers. That figure is even

higher for transgender youth: the 2015 U.S. Transgender Survey, conducted by the National Center for Transgender Equality, found that 40 percent of respondents reported having attempted suicide, a shocking 92 percent of them before age twenty-five.

The clinic spreads the word about its services largely through social media

and partners like Manhattan's Callen-Lorde Community Health Center, which has treated LGBTQ patients for fifty years. When individuals call for an appointment, clinic volunteers conduct a detailed intake interview to determine how to move forward. The staff then works as a team to provide care that can include individual counseling, medication management, and group therapy; all students and trainees are supervised by a senior psychiatrist or psychologist. Since the clinic is currently only open a few hours a week, those who need more intensive psychotherapy or techniques not offered by doctors there are referred elsewhere.

About fifty patients have reached out for assistance so far, and Zhou says they're already seeing results; in particular, a weekly coping skills group that helps patients manage intense emotions or distress has received overwhelmingly positive feedback. "People have said, 'I was nervous the other day, but I used this strategy and it really got me through the moment,'" says Zhou, who serves as co-executive director with Wickersham. "Hearing things like that is really rewarding."

At the same time, the clinic is addressing inequities

facing the LGBTQ community by training future physicians in working with sexual and gender minorities. All volunteers are required to take an eight-week course that teaches them about the population's specific needs—such as how to discuss medical or surgical options for transgender patients and ways to approach LGBTQ individuals who may have experienced trauma—in addition to providing an overview of risk factors that doctors should be aware of when assessing patients including suicidal or self-harming behavior, unsafe sexual practices, and substance use. The curriculum is also designed to introduce students to inclusive and affirming language aimed at showing LGBTQ patients that they're in a safe space.

The elective course is open to all medical students, regardless of whether they plan to volunteer at the clinic. Zonana sees such knowledge as a valuable part of any future physician's education. "The more mental health experience you have as a doctor—no matter what field you go into—the more it helps in terms of better understanding your patients," she says. "And learning to communicate effectively and sensitively is something that applies to everyone."

'There's such a large need,' says MD-PhD student Constance Zhou, 'especially in New York City, where there are a lot of resources, but there are also so many people seeking mental health services.'

Clinic volunteers are engaging in broader interventions, too. Since LGBTQ adults have an estimated three times greater risk of opioid use disorder compared to cisgender heterosexual adults, Zonana is overseeing a research project that involves students distributing naloxone—a drug that can rapidly reverse an opioid overdose—to LGBTQ bars and clubs throughout the city. The study is intended to explore the feasibility of using these non-traditional settings for naloxone education and distribution, with the aim of better reaching people who might be at higher risk for overdose.

Moving forward, Zhou and Wickersham hope to add to the clinic's pool of volunteers so they can expand its hours of operation. Wickersham adds that they've spoken about the program at several conferences, prompting other medical schools to reach out about how they can launch similar projects. "We're trying to show other people that this really works," says Wickersham. "We would love to see this model perpetuated in other places, so there is even more access to LGBTQ mental healthcare."

— Heather Salerno

# **Elegant Solution**

Endocrinology chief Laura Alonso, MD—a specialist in diabetes research and treatment—is exploring ways to restore the body's insulin production

The daughter of two nuclear physicists, Laura Alonso, MD, was drawn to medicine while earning her undergrad degree in biochemistry from Harvard. She attended the University of Pennsylvania's Perelman School of Medicine, followed by an internal medicine residency at the University of Chicago and fellowships in endocrinology and metabolism there and at New York University. Last September, she became chief of the Division of Endocrinology, Diabetes, and Metabolism at Weill Cornell Medicine and NewYork-Presbyterian/Weill Cornell; she is also director of the Weill Center for Metabolic Health, a field that encompasses not only diabetes and obesity but fatty liver disease, hormone imbalances, thyroid-related issues, and more. A physicianscientist specializing in diabetes, Alonso focuses her research on approaches to replenishing the body's population of insulin-producing beta cells. She is an advisory board member and has an equity stake in Fairbanks Pharmaceuticals, a biotech startup working toward a diabetes cure through the regeneration of pancreatic beta cells. Recruited as the Herbert J. and Ann L. Siegel Distinguished Professor of Medicine, she came to WCM from the University of Massachusetts Medical School in Worcester.

### Are cases of diabetes on the rise?

Yes, both types are. Type 2 is associated with weight gain, and we're all aware that obesity has increased tremendously. We also have more children being diagnosed with type 2, which parallels the rise of weight gain in youth and adolescents. That's a big problem, because recent studies have shown that in young people with type 2, it's a much more aggressive illness than in older people. And type 1, which can be diagnosed at any age, is increasing for totally unclear reasons. Type 1 is caused by the immune system:

the infection-fighting cells that are supposed to keep viruses and bacteria from harming your body turn against it and destroy the pancreatic beta cells, which make insulin. No one really understands why the incidence of type 1 is increasing, but it is, across the world.

### Overall, how well does medical science understand diabetes?

That's a hard question. We have so much data and evidence, but human biology is so vast that it's still not enough. In fact, some of the most successful recent treatments have happened by accident.



An extremely important new class of medications for type 2 diabetes is called GLP-1 agonists; they're injectable drugs that increase insulin secretion and decrease hunger and food intake. This was discovered in the venom of the Gila monster. And with respect to the autoimmunity in type 1 diabetes, we are frustratingly far from understanding the actual processes. Even if people like myself are able to regenerate human beta cells, we still have a large gap of knowledge on preventing the destruction of those cells by the immune system. So we have a long way to go.

### What drew you to endocrinology?

It's a complicated field; the biology is very elegant. There are multiple systems operating in parallel where different parts of the body—the brain, the pituitary and adrenal glands, the thyroid, the ovaries and testicles—communicate with each other, and there's all of this feedback going on such that when the systems are working properly, it's very fine-tuned. When something isn't going right, it's like a detective's puzzle trying to sort out the problem. Also, my maternal grandmother had adult-onset type 1 diabetes, and it dramatically influenced her three daughters, two of whom became nurses.

### What do you find gratifying about your specialty?

One thing I love is that you develop long-term relationships with your patients. I celebrate with them when they improve their diet or lose a few pounds and their diabetes gets under better control. And the technology for diabetes management has improved dramatically in the past five or ten years. We have new medications that help people with type 2 lose weight and at the same time get their blood sugars under control. In type 1, the new insulin pumps and continuous glucose monitors—and the technology that connects blood sugar measurement to insulin delivery—are incredible. It's an exciting time to be an endocrinologist.

### Could you describe your vision for the division?

I couldn't be happier to be joining such an accomplished group, which has a long history of top-notch clinical care and research. I'm hoping to grow the research component; almost all the faculty

have had some research training, but the way the division is currently set up, it's not easy for them to do clinical research alongside their full patientcare load. I'm also interested in helping individual clinicians develop an area of specialization in which they can become experts; it helps our division

and can be very rewarding for the physician. Another area I'm hoping to move forward is the training of physician-scientists. We already have a wonderful fellowship program in endocrinology, and we will be applying for grants to support the transition between clinical and research training to help junior faculty navigate the grantwriting process and gain experience so they can go forward and make medically related discoveries.

### What are your plans for the Weill Center for Metabolic Health?

My first charge is to assemble all the people on campus who are doing metabolic-related medical research; there are actually quite a number in different departments and fields. For example, there is an active group in adipose biology—the biology of fat tissue—and there are researchers doing drug discovery toward new approaches to diabetes treatment and much more. In addition, we have resources to recruit junior or even senior scientists, and I'm hoping to develop a live mouse phenotyping core [a facility to help characterize disease in a mouse model] that will allow for sophisticated metabolism-related testing. But the idea is not for the center only to do basic science.

I'm hoping we'll have a broad base that spans all the way to patientoriented clinical research. We'd also love to link to psychiatry, global health, and all of the other strengths on campus that interface with the field of diabetes.

### In terms of psychiatry, how does mental healthcare come in to metabolics?

It's highly relevant to the clinical care of diabetes. There are many psychiatric conditions that influence the ability to care for yourself and that influence obesity and weight loss. There are also social-behavioral issues that result from diabetes; I've had patients with needle phobia or severe anxiety about hypoglycemia. So collaboration between mental health providers and endocrinologists is a potential area of research and clinical care.

### Could you describe your lab's research?

We're interested in pancreatic beta cells. These are the cells that are scattered throughout the pancreas in small clusters called islets, and they're the only source of circulating insulin in the body. Most people with diabetes have either too few or dysfunctional beta cells. The main point of my lab is to try to understand, how does the pancreas know how many beta cells it needs, and can we trigger it to generate new ones? Our approach involves the fact that the mouse pancreas is able to make new beta cells, but the human pancreas doesn't seem to have that capacity very robustly. So I'd love to understand the defect in the human pancreas such that it can't generate new beta cells at will, and try to overcome it.

'One thing I love is that you develop long-term relationships with your patients. I celebrate with them when they improve their diet or lose a few pounds and their diabetes gets under better control.'

# Nowadays, most people understand the health dangers of smoking. Is there something you wish the public knew about the behaviors that can lead to type 2 diabetes?

The concept of what people in our country think is a normal meal needs to be changed; a giant plate of pasta with a little sauce on top and a loaf of bread on the side is not a healthy way to eat. At a lot of restaurants you find an overabundance of starchy, sweet foods. Another really important point is that kids should eat the same food as their parents, and families should eat a healthy variety of foods. I've had adult patients tell me, without even thinking twice about it, that they don't eat vegetables. I'd like sugar-sweetened beverages to be a dessert item taken in small quantities. There needs to be better nutrition education that all this sugar is not normal fuel for the body; even elite athletes don't eat like that. And I wish our culture had more of a physical activity component to it. I object to the concept of exercise as something you have to add to your day because you're supposed to; I wish it were something more people just naturally did because our bodies are made for it and it's fun.

— Beth Saulnier

# **Healthy Habits**

With the aim of lowering Brooklyn's high rate of cancer deaths, a community outreach effort promotes positive lifestyle changes

hysicians and public health researchers have long sounded the alarm about the high incidence of cardiovascular disease in economically disadvantaged urban neighborhoods compared with more affluent ones—a bleak reality driven by a variety of factors including limited availability of fresh produce, higher smoking rates, less access to quality medical care, and fewer venues for physical exercise. But in recent years, another disturbing disparity has become increasingly evident: that residents of underserved areas are also diagnosed with cancer—and die of the disease—at disproportionate rates. "The two go very much hand in hand," says Erica Phillips, MD, MS '03, an associate professor of clinical medicine at Weill Cornell Medicine, "because the behaviors that increase adults' risk for developing heart disease and cancer are actually more the same than they are different—such as excess weight, excess alcohol, physical inactivity, tobacco use, and low fruit and vegetable consumption."

round tables, our health educators, and the conversations we've had with our partnering groups—is that individuals and communities are tired of being told by physicians and the healthcare system, 'Don't do this, don't do that, or this bad thing is going happen,' rather than truly talking about wellness and how to live healthier within your environment."

For Brooklynite Donna Yearwood, it's no mystery why people salt their food, drink sugary sodas, and opt for that side of fries: it all tastes good. But when it comes to encouraging healthier choices, she agrees that a wagging finger is far less effective than solid education about *why* those dietary habits can have negative consequences, and practical ways to make better choices. After Yearwood's church, St. George's Episcopal in Bedford-Stuyvesant, joined in the WCM-led effort, she volunteered for training as a peer educator. She's since taught two sessions of a course called

In New York City, that disparity is most stark in Brooklyn, a borough that has become the focus of outreach efforts by WCM and several partners—including the Sandra and Edward Meyer Cancer Center, the Cornell Center for Health Equity, NewYork-Presbyterian/Weill Cornell, and NewYork-Presbyterian/Brooklyn

'What we've generally heard,' says Erica Phillips, MD, MS '03, 'is that individuals and communities are tired of being told by physicians and the healthcare system, "Don't do this, don't do that, or this bad thing is going happen," rather than truly talking about wellness and how to live healthier within your environment.'

Methodist Hospital—that aim to close that gap. As Phillips and colleague David Nanus, MD, the Mark W. Pasmantier Professor of Hematology & Oncology in Medicine, told an audience at Flatbush's Vanderveer Park United Methodist Church last summer, cancer is now the leading cause of premature death before age sixty-five throughout the borough; 2016 figures from the New York State Public Access Cancer Epidemiology Data put Brooklyn's annual cancer rate—about 11,500 cases—as the highest in the five boroughs.

Since spring 2018, Phillips, Nanus, and colleagues have been working with community groups and other stakeholders—including faith organizations, social service agencies, housing advocates, and groups that teach English as a second language—to strategize the best way to encourage lifestyle habits that lower the risk of cancer and heart disease. They're concentrating their efforts on four neighborhoods: Bedford-Stuyvesant, Flatbush/East Flatbush, Crown Heights/Prospect Heights, and Coney Island. "Our focus is on, how do we help individuals become more educated and aware of behavior changes that can help reduce the risk of both conditions?" says Phillips, associate director of community outreach and engagement at the Center for Health Equity and herself a Brooklyn native who still makes her home there. "What we've generally heard—from our community

HeartSmarts, each with about a dozen students—covering such topics as why excessive salt consumption can lead to high blood pressure; the value of swapping soda for flavored water; and easy ways to increase physical activity, such as getting off the bus a stop early. (A faith-based program aimed at teaching underserved communities about cardiac health, HeartSmarts was developed by Holly Andersen, MD, director of education and outreach at NewYork-Presbyterian/Weill Cornell and clinical associate professor of medicine at WCM, and Naa-Solo Tettey, EdD, coordinator of cardiovascular health education at the Ronald O. Perelman Heart Institute at NewYork-Presbyterian/Weill Cornell.) One particularly valuable lesson for both Yearwood and her students: how to decode nutrition labels in the grocery store. "Normally you'd just go in and say, 'I want this,' but you don't realize how much salt or sugar is in it," says Yearwood, a surgical coordinator at Brookdale University Hospital Medical Center. "I picked up some multigrain crackers and thought they were healthy, but they were high in sodium. That's something I wouldn't have known before."

As Nanus stresses, in addition to adopting healthier habits, there's another key factor in reducing cancer deaths: getting people screened through routine, age-appropriate testing such as









**COMMUNITY WELLNESS:** Erica Phillips, MD, MS '03 (top right), and David Nanus, MD (bottom left), speak at a prostate health fair in September at Brooklyn's Vanderveer Park United Methodist Church, where participants received not only information but diagnostic testing (top left) and individual consulations (bottom right).

mammograms, colonoscopies, and prostate exams. The outreach efforts have included events where residents can get free screenings, such as a prostate health fair held at Vanderveer United Methodist in late September. "If you're going to get cancer, it's better to diagnose it early on, because it's more curable," says Nanus, also an attending physician at NewYork-Presbyterian/Weill Cornell. "For instance if a patient undergoes a colonoscopy and is diagnosed with a polyp—a pre-malignant lesion—they just need an endoscopy to have it removed, versus if that person doesn't undergo screening and is later diagnosed with stage-2 colon cancer, they could need surgery followed by chemotherapy." Nanus points out that while the official incidence of breast cancer is highest in Manhattan—where more women get screened, are diagnosed, and receive early-stage treatment—the death rate from the disease is higher in the less affluent boroughs; similarly, he says, "If you're diagnosed with prostate cancer in Brooklyn, you have a two and a half to three times greater chance of dying of it than if you're diagnosed in Manhattan. It's not just about incidence; it's also the chances of being cured."

While the Brooklyn outreach efforts have a research

component—for example, neighborhood residents enrolled in the eight-week HeartSmarts program track their blood pressure and weight throughout the course, and they report their rates of behaviors like exercise, smoking, and alcohol consumption before and after taking it—that's not the focus, Phillips says. "Our initial programming is all service based," she says. "It's not always the most astute or best way to engage communities by walking in and saying you want to study them. We do collect information so we can show programmatic reach—and we feed that information right back to the organizations. At the end of each eight-week course, we give the participants a report that says, 'These are the things you improved on." " As for Yearwood: she's practicing what she preaches. She's made such changes as opting for smaller portions, taking the stairs instead of the elevator, eating more vegetables, and eschewing fried foods in favor of healthy options like kale salad. "Knowledge is the key," says Yearwood, whose HeartSmarts students included both her parents. "A lot of the changes are small, but they'll help you live longer and healthier."

— Beth Saulnier

# **Under Covers**

Masks change the streetscape, but the heart of New Yorkers is still visible

PHOTOS BY ASHLEY JONES

Until very recently, face masks were seldom seen in the United States outside of doctors' offices, operating rooms, and sometimes beauty salons. Now, because of the COVID-19 pandemic, the Centers for Disease Control and Prevention recommends wearing a mask or face covering in public, particularly in situations where social distancing is not possible.

While face masks present an enormous cultural adjustment for many Americans, the challenge to read facial and other cues in unfamiliar ways is particularly striking in New York City, where residents typically learn to become expert in navigating close contact—and, sometimes, social interactions they'd rather avoid. In a city of 8.3 million people, social distancing is potentially challenging in any situation; even those stepping out of their apartments to stretch their legs might find the sidewalks too narrow to successfully stay at least six feet away from others.

Raw from the toll COVID-19 has taken on their neighbors and loved ones, New Yorkers have largely accepted this new way of inhabiting the city, and face masks are quickly becoming the norm on streets and in parks. As they make eye contact—a new habit for New Yorkers accustomed to avoiding it—mask wearers, despite their altered appearance, show solidarity and a sense of community and social responsibility that feels familiar, both from previous catastrophes that have befallen the city and the mundane inconveniences of life here.

Face coverings are undoubtedly an important aspect of preventing COVID-19 infection, but they also symbolize the wearer's commitment to public health and safety. When living in such close quarters with others, it's not difficult to understand how interdependent our health and wellbeing are.

— Tori Mumtaz









IN THIS TOGETHER (clockwise from opposite page): William Henderson (a Cornell undergrad) in Williamsburg, Brooklyn, wearing a mask by a local designer; documentary photographer Juan Delgado capturing New York during COVID-19; Lisa Jaeggi gardening in a homemade mask on the Upper East Side; and Barbara Milbauer enjoying Central Park while wearing a face mask







Increasingly, doctors and med students are embracing the role of advocate—benefiting not only their patients, but society at large

BY HEATHER SALERNO

n early March, Shetal Shah, MD '00, was in Albany along with other doctors to lobby for important regulations to protect children's health. As president of New York State Chapter 2 of the American Academy of Pediatrics, Shah had been there many times before, including last summer as the state grappled with the largest measles outbreak in decades. He's among the physicians who helped convince lawmakers to eliminate nonmedical exemptions for immunizations for schoolchildren, despite fervent opposition from vaccine skeptics and advocates for religious freedom. As he left a legislator's office on this particular day, a group of anti-vaccine protestors who heard Shah was at the Capitol began following him throughout the building and shouting at him, an encounter that was later posted on YouTube. "How does it feel to kill kids?" one man yelled.

Being the target of such vitriol is troubling, but Shah doesn't regret trying to push the bill through. He was horrified to see so many people—especially children—sickened by a preventable disease and was determined to do something about it. Members of his organization made more than 1,000 >

Editor's note: This story was reported prior to this summer's demonstrations in support of racial justice; for more information on participation in those protests by WCM faculty and students, see pages 12–13.





phone calls to state senators about the exemption, visited district offices statewide, and created hundreds of social media posts to combat disinformation. "I went to Albany seven times in the span of eight or nine weeks. Even now, thinking about it exhausts me," says Shah, a neonatologist and researcher at Maria Fareri Children's Hospital and New York Medical College in Valhalla, New York. "Normally physicians don't meet with legislators, but there is a growing opposition that is trying to delegitimize physician expertise on vaccines and other aspects of health. We have to make sure the voice of science is heard."

Shah is part of a new activist generation that has emerged among today's physicians and medical students, who have come to see advocacy as a priority and central to their professional identity.

Physician-advocates are nothing new, of course: doctors have long addressed public health concerns and been instrumental in bringing about policy change in areas like cigarette smoking, drunk driving, and traffic safety. But in recent decades, as demographics have changed among the medical workforce—the majority of U.S. medical students are now women, and the number of Black and Hispanic doctors is rising—there's an increased focus among doctors on promoting broad societal changes to benefit human wellbeing. It's an evolution that has even prompted rewording of medicine's sacred creed, the Hippocratic Oath. Weill Cornell Medicine updated its own version of the oath in 2005 to emphasize, in part, that each graduate should "be an advocate for patients in need and strive for justice in the care of the sick."

Indeed, today's physicians and doctors-in-training are becoming deeply engaged with some of the country's most contentious social and political issues—everything from the anti-vax movement to gun control, race, and laws that target immigrants. Some 89 percent of medical students support the Affordable Care Act, according to a study published in Academic Medicine last September, and several professional societies in recent months publicly expressed support for universal healthcare an issue that some physicians active on social media said the COVID-19 pandemic had also driven home as they treated uninsured patients with the disease. "There's definitely been a shift compared to twenty years ago. There's much greater interest and awareness of the role of advocacy that has expanded into a broader range of issues," says Tannaz Rasouli, senior director of government relations for the Association of American Medical Colleges. "Physicians went into medicine because they want to make a difference and help their patients, and they're seeing advocacy as another tool to help them do that."

### A Changing Identity

Mayur Narayan, MD, an associate professor of surgery at WCM and an attending trauma surgeon at NewYork-Presbyterian/Weill Cornell, sees his advocacy work to prevent gun violence as essential to his identity as a physician. "It's not an option," he says. "It's a moral obligation." After eighteen years of treating patients with gunshot wounds—first at Baltimore's R Adams Cowley Shock Trauma Center and UT Southwestern Medical Center in Dallas, two of the nation's busiest trauma centers, and now in New York City-Narayan has lost track of how many people he's watched die because of firearms. He points out that each year more than 36,000 Americans are killed with guns, a figure that comprises suicides, homicides, and accidents. "Mass shootings get all the headlines, and they're terrible, of course,"

he says. "But this is happening day in and day out across our country."

To try to reduce the number of deaths due to shootings and other injuries, Narayan got involved with the American College of Surgeons' "Stop the Bleed" program, which trains laypeople in bleeding-control techniques. Three years ago he led the charge to bring the training to all first-year medical students in their first week at WCM, providing a window into gun violence that might otherwise seem removed when viewed solely through the lens of news reports. Meanwhile, Narayan is passionate on Twitter, in TV appearances, and in speeches he gives at conferences and to medical organizations around the world about the need for more gun violence research and sensible gun-control laws. In his view, physicians shouldn't hesitate to have their say about pressing issues, arguing that as healers, their voices can make a powerful impact on the broader public debate.

For instance, like many medical professionals, he responded angrily to a 2018 tweet from the National Rifle Association that told "anti-gun doctors to stay in their lane" and called on his colleagues to speak up about gun control. "We're on the front lines where nobody else is," Narayan says. "We see the blood pouring from those patients in our operating rooms. Whether it's gun violence or other problems that relate to health, we need to be heard."

#### A New Outlook

For many future doctors, the importance of embracing such activism is self-evident. A recently published study of medical students across the country found that nearly nine out of ten consider civic engagement to be an integral part of their professional duties. Dana Zappetti, MD, assistant professor of medicine and former associate dean for student affairs at WCM, says one reason for this might be that since incoming medical classes are more diverse, students have a broader range of backgrounds

that help shape their worldview. She also points out that today's future doctors have grown up with the Internet, which has allowed them to be more informed about a wider range of current events at a younger age than previous generations. Plus, it's far easier these days to connect online and organize for change. "When I was in medical school, if somebody wanted to have a meeting about something, they would hang a flier on a bulletin board-and if I happened to walk past and see it, maybe I'd show up," says Zappetti. "Now we use e-mail and social media sites to bring people together."

In recent years, more medical schools have started to incorporate advocacy into training, either by integrating learning opportunities into required courses and electives or by supporting activities outside the classroom that are often launched by students themselves. William Ford '22 says he was happy to see an activist bent in some of the assignments for his second-year medicine clerkship; one directed him and his >

'PHYSICIANS WENT INTO MEDICINE
BECAUSE THEY WANT TO MAKE
A DIFFERENCE AND HELP THEIR
PATIENTS,' SAYS THE AAMC'S
TANNAZ RASOULI, 'AND THEY'RE
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TOOL TO HELP THEM DO THAT.'

**TAKING ACTION:** MD-PhD students Stephanie Azzopardi (left) and Briana Christophers at a protest, held in Manhattan's Foley Square in summer 2019, against the detention of migrant children. Opposite page: Pediatrician Shetal Shah, MD '00 (at left), at a fall 2019 press conference where he advocated for a ban on vaping in public parks in New York's Nassau County.



'IT'S IMPOSSIBLE TO SEPARATE
SOCIAL ISSUES AND THE BIOLOGY
BEHIND A DISEASE OR HEALTH
PROBLEM,' SAYS MD-PHD
STUDENT NNEOMA ADAKU.

**TAKING A STAND:** In fall 2017, WCM student activists gathered for a group photo in support of immigrants and refugees; participants included Nneoma Adaku (at center right, holding a sign over her head), co-founder of White Coats for Black Lives. Opposite page: Surgery professor Mayur Narayan, MD (at center), leading a Stop the Bleed event on campus at the start of the fall 2018 semester.

classmates to tweet about a social justice issue that they perceived as affecting patients. Ford also helped organize the second annual Advocacy in Medicine conference last fall; co-funded by WCM and held at the New York Academy of Medicine, it was attended by more than 200 healthcare advocates and medical students from WCM and other institutions throughout New York City, who spent a day listening to keynote speakers and participating in hands-on workshops. Among the topics discussed were disability justice and rights, the impact of climate change on health, and the challenges immigrants encounter when trying to access healthcare. "For a very long time there's been this idea that medicine should only be about treating the patient in front of you," says Ford, who's also a board member of the WCM chapter of Students for a National Health

Program, which advocates for a single-payer (or "Medicare for All") system. "What the conference aims to do is to say not only should you care about these things, but here are avenues for you to act on these problems that your patients face in a way that's bigger than your individual practice as a physician."

Second-year MD-PhD student Briana Christophers also helped coordinate the conference. As an undergrad at Princeton, she spent a lot of time advocating on behalf of students of color and wanted to continue that work in medical school and beyond. One key aspect of the conference, she says, is that it teaches young people tangible skills that makes their advocacy endeavors more impactful, such as how to best facilitate meetings with elected officials or use social media to influence public policy. Those were critical skills when Christophers joined WCM's





Latino Medical Students Association last fall in a nationwide call to action to encourage lawmakers to support a bill that would ensure that migrants detained at the border have access to clean water, food, shelter, proper sanitation, and basic health screenings. Holding signs with the hashtag #WhiteCoatsForHumanRights, Christophers and others gathered for a photo and posted it to Twitter and Instagram along with a script individuals could use when contacting their representative about the bill. It was an important issue for Christophers, who had spent three weeks in summer 2019 volunteering at a resource center in El Paso, Texas, for migrants who had just been released from detention. "There was a pregnant woman whom we had to send to the hospital because she was severely dehydrated and malnourished; one woman was having a panic attack

because she hadn't had her anxiety medication for a week," she says. "As a future physician who wants everyone to have the best possible foundation from which to live healthfully, I was outraged that migrants seeking help were in these conditions."

Fourth-year MD-PhD student Nneoma Adaku is another WCM trainee who has firmly stepped into an activist role. She co-created the inaugural advocacy conference in 2018, after realizing that there were many other students who, like her, wanted to learn how to build more effective advocacy strategies. That came on the heels of another effort: within months of arriving at WCM, Adaku co-founded a chapter of White Coats For Black Lives, a national medical-student-run organization that strives to eliminate racial bias in healthcare and promote the wellbeing of people of color. So far

the chapter has hosted a town hall to discuss racism in medicine and launched social media campaigns to protest the federal government's ban on travelers from predominantly Muslim countries and the repeal of the Deferred Action for Childhood Arrivals (DACA) program, an Obamaera action that protects certain young undocumented immigrants who came to the U.S. as children from deportation. "It's impossible to separate social issues and the biology behind a disease or health problem," says Adaku. "There's a crisis of Black maternal mortality because racism exists in our society, and it manifests in childbirth outcomes. If your patient is undocumented and ICE is trying to deport them, how does that affect their health? I think more and more people in medicine are recognizing how important it is to talk about how these things intersect."

# NEWS OF MEDICAL COLLEGE AND GRADUATE SCHOOL ALUMNI



Dear Alumni,

In May, our graduating students recited the Hippocratic Oath at their commencement ceremony. Although the actual event—a virtual one—was certainly different than all of us anticipated, the words that shape this oath have never been more relevant than they are today. *I do solemnly vow, to that which I value and hold most dear . . . that I will not withdraw from my patients in their time of need.* This idea—that as physicians, our fundamental calling is to help our patients when they are in need—is evident in our work each day, and especially now, in the face of the global COVID-19 pandemic. The Weill Cornell Medicine students, through their dedication and ability to rapidly adapt under extraordinary circumstances, have already shown us that they are ready for this challenge.

All of us are learning how to combat an evolving disease and are witnessing firsthand an ever-changing medical landscape. Our students are developing skills—like approaching a problem from a new perspective and discovering novel platforms for learning about medicine and science—that will surely shape their careers and make them even better doctors. They are at the epicenter of a transformation in healthcare—at one of the finest medical institutions in the country—and I believe that they will carry these lessons forward into the future.

While at times this experience may be scary or overwhelming, our students have shown us that they will weather this moment with strength and grace. As an example, many of our fourth-year students graduated early so they could assist in the response to COVID-19. Our students in earlier years, too, are finding ways to support our doctors and nurses, like raising money to provide free meals for them. As alumni, we are incredibly proud of these students and remain committed to supporting them during this difficult time. To that end, the Alumni Association has put together various initiatives to connect alumni with our students, including several new Alumni-to-Student Knowledge (ASK) sessions that will feature alumni perspectives from the front lines of COVID-19 and lessons from the many health crises that have come before. ASK sessions—currently held remotely—provide a unique forum where students can engage directly with alumni in a relaxed environment. As always, our network of alumni is robust, committed to mentoring our current students, and ready to help.

Over the past few months, we have seen our alumni across the globe rise to meet the COVID-19 challenge. Many of our physicians, both in New York City and beyond, are working on the front lines to combat this virus—putting their own health at risk to help save lives. And, of course, Anthony Fauci, MD '66, the director of the National Institute of Allergy and Infectious Diseases, is leading the way. When I think of these heroes, I am reminded of a quote often attributed to psychoanalyst and writer Clarissa Pinkola Estés, PhD. She said, "When a great ship is in harbor and moored, it is safe, there can be no doubt. But that is not what great ships are built for." The Weill Cornell Medicine students and alumni are certainly built to withstand this storm. And although we may be weary, I am confident that we will continue to provide the best possible care to our patients in need. Because that is what doctors do.

The Alumni Association congratulates the Class of 2020 on this momentous occasion. We wish you all the best, and welcome you into our ever-growing community of alumni.

Natasha Leibel, MD '98 President, Weill Cornell Medical College Alumni Association NL121@columbia.edu Dear readers: Please note that these alumni news items were written and finalized before the global COVID-19 pandemic and may contain references to events that have since been modified, canceled, or postponed.

### Medical College

#### 1950s

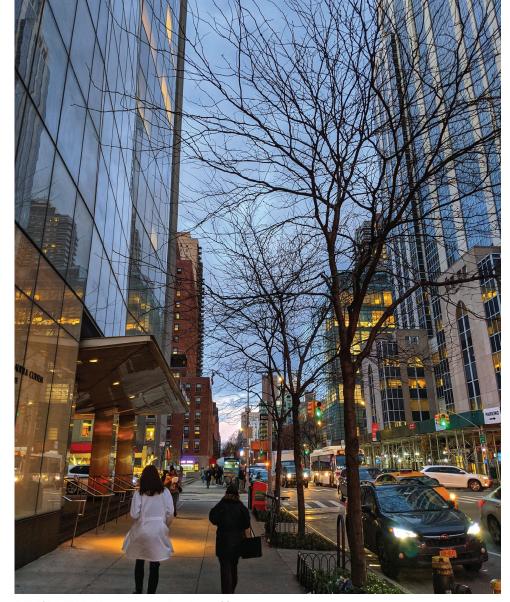
Jay N. Cohn, MD '56:"I remain director of the Rasmussen Center for Cardiovascular Disease Prevention at the University of Minnesota. After a career treating advanced disease, I am committed to keeping everyone free of cardiovascular disease until they die of something else."

Jerome Jacobs, MD '56: "From our new residence at Kendal on Hudson in Sleepy Hollow, NY, Fran and I wish all our friends and classmates in the Class of '56 a very happy New Year. We live an active life in this lovely retirement community and look forward to celebrating our, and our class's, 64th anniversary this spring."

**Edward Margulies, MD '56:** "Still going strong. Wintering in Naples, FL. Spending the summer in Highland Park, IL. Playing lots of bridge and golf. Trying to keep up with my wife, Paulette. Grandchild count reached seven. Our kids are thriving. Glad to see that **Millie Rust, MD '56,** is still pounding the boards. Good for her!"

Mildred Rust, MD '56: "In September I attended the National Conference on Medical Student Mental Health and Well-Being, hosted by our alma mater. It was excellent, hit all the buttons, very good speakers including Avery, Friedman, Choi, et al."

Bernie Siegel, MD '57: "I have two more books coming out this year. No Endings, Only Beginnings is about the mystical and spiritual aspects of life and our consciousness. It tells the truth about life and what medicine has trouble accepting and understanding until doctors become patients. My wife died two years ago and the mystical experiences that have occurred are amazing, including my heart arrhythmia nine months after she died. The other book, Three Men Six Lives, is about past life experiences and how they can teach us and be therapeutic. True stories, including mine, are shared. We need to stop separating people into minds and bodies and integrate



**EYE FOR DETAIL:** Medical student Tara Pilato '22 is an avid amateur photographer who enjoys shooting NYC streetscapes like this one outside the Weill Greenberg Center on York Avenue. Her images (taken prior to the COVID-19 pandemic) are featured throughout this issue's Notebook.

and understand both are part of one creature. Self-induced healing is not a spontaneous remission, and past lives are real experiences of our consciousness."

**Tom Nall, MD '59**: "Time to prepare for the last stage. So I have moved into an apartment in the independent living section of my local assisted living facility—across the state line from Fulton, KY, to South Fulton, TN."

Harry G. Preuss, MD '59: "My new book, *Dietary Sugar, Salt and Fat in Human Health*, published by Elsevier, came out in April 2020. Two of my last published manuscripts dealing with insulin resistance and the metabolic syndrome have achieved some acclaim and requests are coming in to editfurther symposia and attend conferences for presentations on insulin resistance, the metabolic syndrome, and aging."

#### 1960s

William Schaffner, MD '62, has received the Distinguished Career Award from the public health education and health promotion section of the American Public Health Association "in recognition of outstanding contributions to the practice and profession of health education, health promotion, and health communications."

Emily F. Omura, MD '64: "Hello to classmates, from Birmingham, AL, where I moved in 1970 with my husband, George Omura, MD '62, to join the faculty of the University of Alabama Medical College, where I taught dermatology and dermatopathology until I retired at age 70. I loved my fields of medicine, but I am also loving retirement. Regards to all."



**DIVINE INSPIRATION:** Pilato's shot of the Church of St. John Nepomucene near Memorial Sloan Kettering Cancer Center

John R. Graybill '62, MD '66: "At the age of 79, my recurrent discussion with my wife is whether or not to renew my medical license. I look back with satisfaction on a career of preclinical and clinical investigation with new antifungal drugs for cryptococcosis, histoplasmosis, coccidioidomycosis, and other systemic fungal infections. I was involved with animal model testing and then the large clinical trials of the Mycosis Study Group. The regimens we developed have become standard therapy, and are only now being further updated. The majority of patients with many of these mycoses, however, are now seen mainly in the developing world, thanks to new antiretroviral therapy. It has been a privilege to be active in the 'golden age' of mycology. Since retirement in 2007, my wife and I have been developing interests in hobbies outside of medicine. I continue to subscribe to Clinical Infectious Diseases and attend grand rounds, but have also gone in other directions. We now spend four to five months a year in our second home in Guatemala, outside of the city of Antigua. Initially we bought it to support some medical mission work, but that has dropped off and I spend a lot of the time there reading, observing our local volcano 10 miles away—it erupts often—and cultivating orchid species. I have about 1,000 orchids in Guatemala, where they grow much more easily at our altitude of 5,300 feet than here in San Antonio, with its very hot summers and a few days of freezing in the winter. In the past eight months I have been a volunteer with the Interfaith Welcoming Committee, which is a group of hundreds of local volunteers helping Central American asylum seekers and others get (at least temporarily) to family members in the U.S.—mainly mothers and young kids. Our federal leadership shut that down very effectively this past November, and now our governor says Texas is too full to take new immigrants. None of the Texas city mayors agree with him. In any case, this work is in abeyance. It is very difficult to live in a border state in the U.S. and see people being brutally treated at our borders. We are better than this—at least I hope we are."

N. Reed Dunnick, MD '69:"I received the gold medal from the Radiological Society of North America (RSNA) on December 3, 2019. The annual meeting of the RSNA is the largest radiology meeting in the world, with attendance of more than 50,000. On October 21, 2019, I received the gold medal from the Society of Advanced Body Imaging."

Steve Shaul, MD '69: "Some thoughts about retirement after my rheumatology career, which began on York Avenue and ended in central Washington State: 'We began as newly minted MDs / Poised to fight dastardly disease. / Now lots of what then defined us / Is pretty much behind us. / Then stamina to stay in play. / Now a well-placed nap can make our day./Then minds quick and sticky./Now memory and recall tricky./Medicine marching ahead updated / Leaves us even more antiquated. / Adding insult to injury, morbidity and mortality /Now an all-too-personal reality./Nothing like the training of the clinician / Is there for this uneasy transition. / Rather, the comfort of context is key: / We are becoming history. / As practitioners of a noble endeavor/Meeting and treating forever/Blending the social and science/Facing suffering with defiance / We are now in the company / Of all the clinicians of history, / Sharing the privilege / Of our clinical lineage.' "

#### 1970s

Eric Thomas, MD '70: "Hi all! Still going strong, and a new 'work hobby' is a YouTube channel named Nutmeg Dermatology. It's heavy on content and sincerity but still needs improvement on the entertainment side. Saves me a ton of time in the office and projects a nice and honestly caring face to the world. Wish I had done it sooner, though I suppose it is never too late. Will eventually link to my website, middlesexdermatology.com."

John E. Nees, MD '74: "My current 'after hours' activities include piano performance in Plano, TX; the Christian Medical Dental Association global health outreach missions; and the Tau Beta Pi National Convention. Recently I participated in medical missions in Tanzania and took a Viking cruise on the Rhine River. I wish I had more time to enjoy my house in Playa Blanca. I remember the excellent professors from medical school: Swan, Gergis, Gershon, Daniels, Lindo, Hochstein, Garty, McDowell, Plum, Foley, and more. Also my third-year trip to Mkar, Nigeria, to work with Dr. Stuart Kingman. Too bad the nursing school was closed."

**Edward W. Hook III, MD '76**: "In May 2019 I shifted my status from active faculty to

emeritus here at the University of Alabama at Birmingham, where I continue to serve as an attending on the general internal medicine inpatient service and continue to participate in a number of NIH-, CDC-, and WHO-sponsored projects related to sexually transmitted disease control and sexual health. I was recently surprised and honored to have an endowed professorship in infectious diseases translational research created in my name."

**Andrew Kwait, MD '76**: "We're proud of our son, Dylan, appointed chief of radiology at Brigham and Women's Faulkner Hospital, Harvard Medical School."

Vincent de Luise, MD '77: "I have retired from the clinical practice of ophthalmology. I am still on the clinical teaching staff at Yale University School of Medicine and have been appointed a distinguished visiting scholar at Stony Brook University Renaissance School of Medicine in the Department of Medical Humanities and Bioethics. I was a visiting professor at the University of Rome La Sapienza School of Medicine in Rome, Italy, this past year, where I lectured on visual perception and art, and the neurology of music. I continue on the adjunct faculty at WCM, where I serve on the advisory board and as program annotator of the superb Music and Medicine Orchestra."

**Steven Koenig, MD '77:** "My daughter, **Lisa Koenig, MD '20,** matched with the ophthalmology residency at WCM. She will be the third generation of ophthalmologists in our family and we are thrilled with her choice."

Joseph A. Kovacs, MD '79, was awarded the Harriet P. Dustan Award for Outstanding Work in Science as Related to Medicine by the American College of Physicians (ACP), a national organization of internists. Established by ACP's Board of Regents, this award recognizes outstanding work in science (non-clinical or clinical, biochemical, biological, physical, or social) as related to medicine. Dr. Kovacs is a senior investigator in the NIH Clinical Center Critical Care Medicine Department (CCMD) in Bethesda, MD. Since 1987, he has served as head of CCMD's AIDS Section. For the past 35 years he has worked as a clinical investigator at the NIH Clinical Center focusing on HIV and HIV-related complications. He has been a principal or associate investigator on multiple protocols studying the treatment of HIV infection and management of HIV-related

opportunistic infections. He also runs a lab that studies the basic biology of *Pneumocystis*, a fungus that causes a life-threatening pneumonia in immunosuppressed patients. He is an associate clinical professor of medicine at the George Washington University School of Medicine and Health Sciences, an attending physician at the Medstar Washington Hospital Center, and an associate editor of the *Journal of Infectious Diseases*.

#### 1980s

**Robert Naparstek, MD '80**: "I have been appointed as a national trustee to the National Symphony Orchestra at the Kennedy Center in Washington, DC."

'My daughter, Lisa Koenig, MD '20, matched with the ophthalmology residency at WCM. She will be the third generation of ophthalmologists in our family and we are thrilled with her choice.'

- Steven Koenig, MD '77

SUNSET SCENE: A dramatic view from a high floor of the Belfer Research Building





IN THE NEIGHBORHOOD: First Avenue at 69th Street, near the Weill Cornell Medicine campus, in summer

Gary J. Noel, MD '80, was appointed chief medical officer of the Institute for Advanced Clinical Trials (I-ACT) for Children. Dr. Noel is a pediatrician, child advocate, specialist in infectious diseases and immunology, and expert in drug development, having spent more than 30 years in leadership roles in the biopharmaceutical industry and academia. He joins I-ACT for Children after retiring from Johnson & Johnson, where he most recently served as a member of the child health innovation leadership department in the office of the chief medical officer and as chair of its pediatric expert panel. Prior to his time in industry, Dr. Noel served on the fulltime faculty at WCM; was the chief of pediatric infectious diseases and immunology at NewYork-Presbyterian/Weill Cornell and led the pediatric infectious diseases fellowship program and an NIH-funded laboratory. Dr. Noel is a fellow of the American Academy of Pediatrics, the Infectious Diseases Society of America, and the Pediatric Infectious Diseases Society and has been a member of the Society for Pediatric Research for more than 30 years.

Rochelle Peck, MD '80: "Life has been exciting and busy. I have been retired for three years now and am enjoying every minute. I have a grandson who lives in San Francisco and who is responsible for my frequent trips to the West Coast. In October, I spent three weeks touring Iran and it was possibly the best trip ever. Iran is a country of gorgeous architecture, fascinating literature and poetry, as well as an important civilization more than 5,000 years old. I was mesmerized and overwhelmed both by the beauty and by the hospitality and friendliness of the Iranian people. Sandwiched in between and around my travel, I take courses at the New School and NYU, go to lectures, theater, and concerts, and spend time with family and friends."

Karl Weyrauch, MD '80: "We have been working with the Batwa Pygmies of Rwanda since 2008, when we were asked by their chief to help stop their extinction. We found that more than half the children were dying of malnutrition before age 5. Now, as a result of their hard work and initiative, and with our support, so many are surviving that we are building a center to prepare them for life in the 21st century: the Amakondera Institute for Early Childhood Education and Culture in

Cyaruzinge, Rwanda. For this work, our non-profit, Pygmy Survival Alliance, recently earned a Platinum Seal of Transparency from Guidestar.com, a well-regarded guide for philanthropists. We encourage our WCM alumni friends to check out our Facebook page to find out how they can be part of this exciting opportunity to ensure the survival of this ancient culture."

**Gary Eddey, MD '83**: "I retired from Ryan Healthcare on the Upper West Side and am working on my second and third novels and babysitting my four grandchildren here and there. Recently, I had an article published in the journal *Sea History* on the towering inferno at South Street Seaport in 1853."

Virgil Alfaro, MD '84: "I am the senior partner of a five-person retina and macula practice. Still love the patient care, the surgery, and all of the things that come with it. I own an ambulatory surgical center with four other surgeons and having my own place to operate has been very rewarding. Serendipitously I got involved with addiction care, and a partner and I are opening a residential treatment facility here in Charleston, SC. The 12-step program and other ways to help the community have opened up new avenues that are exciting and fulfilling to me. My three children are out of the house and all seem to have their own special plans to give back to the world. I greatly enjoyed seeing my classmates at last year's Reunion."

Christopher Gribbin, MD '84: "Our daughter, Caitlin Gribbin '13, MD '18, is now in a research track residency/fellowship at WCM in hematology/oncology. She will get married in September (to an MD/PhD WCM/Rockefeller student; they met in first-year gross lab). For us, all is good. Interventional radiology and organized medicine for me in a huge 100 percent private practice radiology group; solo private practice, physical medicine and rehabilitation for Dorota. Invested in physician independence! Live in Princeton, NYC around WCM, and Florida."

Jacqueline Jones, MD '84: "I am still at WCM as a clinical associate professor of otolaryngology and have been managing partner of Park Avenue ENT based on the Upper East Side for the past 16 years. I am pleased to announce my parenting book, Medical Parenting: How to Navigate Health, Wellness, and the Medical System with Your Child. The

foreword was written by my dear friend and classmate **Peter Adamson, MD '84**. Please visit medicalparenting.com and gift my book to your kids."

**Susan Ascher, MD '85**: "I am a professor and the vice chair of research in the Department of Radiology at Georgetown University Hospital and am proud to be one of the class leaders for our 35th Reunion."

**Robert L. Buly, MD '85**: "I'm still working full time at HSS, but managing to visit Italy every few months to manage our growing wine and olive oil business."

**Peter S. Conti, MD '85,** a tenured professor of radiology at the USC Keck School of Medicine and director of the USC Molecular Imaging Center, received the 2019 Lifetime

'Recently, I had an article published in the journal Sea History on the towering inferno at South Street Seaport in 1853.'

- Gary Eddey, MD '83

**INCLEMENT WEATHER:** Another shot of the intersection of First Avenue and 69th Street shows the Upper East Side on a snowy, slushy winter day.



'I have started painting again (oils, pastels) after a very long hiatus, and am enjoying it very much.'

- Alexander Babich, MD '88

Achievement Award from the American College of Nuclear Medicine for his contributions to the field. Dr. Conti had previously been recognized by the Society of Nuclear Medicine and Molecular Imaging with the Paul C. Aebersold Award for his contributions to clinical position emission tomography and with the Peter E. Valk Award for his achievements in the basic science of molecular imaging.

**Hugh M. van Gelder, MD '85,** is president of the Florida Society of Thoracic

SUNNY DAY: The sky is reflected in the windows of the David H. Koch Center (at right), with the main



and Cardiovascular Surgery. He has transitioned his practice to the James A. Haley Veterans' Medical Center in Tampa, FL.

Chris Plowe '82, MD '86: "My wife and colleague, Myaing Nyunt, and I moved in 2018 to Durham, NC, where I direct the Duke Global Health Institute and Myaing directs a malaria research and training program with labs and field sites in Myanmar, China, and Bangladesh. All three of our children live and work in NYC, where we had Christmas at the Cornell Club last year. Last summer Bruce Siegel, MD '86, and Stephen England, MD '86, and I revived the boys' weekend tradition that we started in the Nineties, with my little brother, Jonathan Plowe (Cornell BA '92), standing in for the late **Harry Arlis, MD** '86. We spent the weekend in Key West talking politics, bragging about our kids, and commiserating about our advancing decrepitude."

Alexander Babich, MD '88: "I'm beginning to transition toward retirement, now working four days a week, and will be stepping down as chair of pathology this year. I have started painting again (oils, pastels) after a very long hiatus, and am enjoying it very much. To get me going, this past summer I took a plein air painting course in the South of France that was a lot of fun. My older son graduated from Georgetown Law and he and his wife have settled in D.C. Both have written books, which they are self-publishing. My younger son graduated from Stanford and started a real estate business that has rapidly grown to 35 employees and \$20 million. He lives near us in St. Louis."

Theresa Rohr-Kirchgraber, MD '88, remains active in the American Medical Women's Association as its Advocacy Committee chair. With a focus on women in leadership and the impact of sex and gender in health and disease, she has published three articles recently and has been a local invited speaker on such topics as the state of women in medicine in Indiana and the prevention and management of HPV. Her essay "Women Do Belong in Academic Medicine: A Rebuttal to an IU Faculty Post" was published in the Indiana Medical Society Bulletin in December. Dr. Rohr-Kirchgraber was recently elected to the Indianapolis Medical Society board of directors. She and her husband, Paul Kirchgraber, MD '88, have recently become grandparents. Paul is the CEO of Covance, a division of LabCorp. Recently, he met up with **Cheryl Pegus, MD '88,** at a conference in San Francisco, CA. Not having seen each other in 30 years, it was still easy to recognize each other and great to catch up.

**Abigail Falk, MD '89**: "I received the Gerald Beathard Award in February. It is presented by the American Society of Diagnostic and Interventional Nephrology in recognition of teaching excellence, scholarly activity, and clinical excellence. I am the first and only radiologist to receive it."

#### 1990s

**Daniel B. Jones '86, MD '90,** chief of minimally invasive surgical services and director of the bariatric program at Beth Israel Deaconess Medical Center, has published Surgery Boot Camp Manual: A Multimedia Guide for Surgical Training (Wolters Kluwer).

**Cynthia Frary McNamara, MD '91:** "I currently work at VA Connecticut and my faculty title is assistant professor of clinical medicine, Yale School of Medicine."

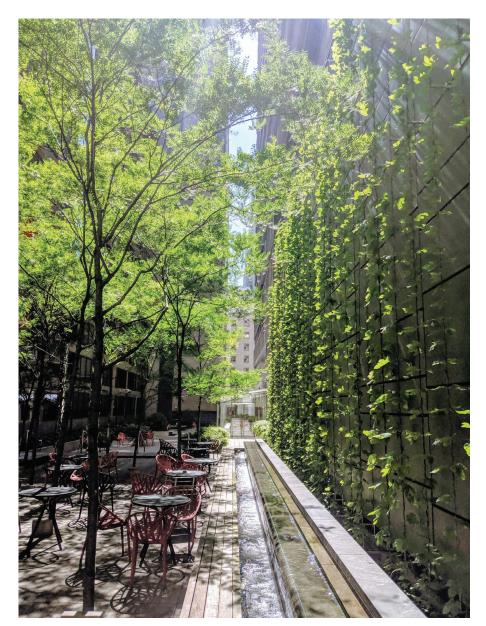
Mark Miller, MD '91, and his wife, Julie, recently spent the weekend in New York City and visited three of their four children and their spouses: Rachel (born at then-New York Hospital) and Gabe, Yovel and Jerry, and Leora and Andrew Miller, MD '20.

Roderick K. King, MD '92: "I was recently promoted to senior associate dean for diversity, inclusion, and community engagement for the University of Miami Miller School of Medicine."

#### 2000s & 2010s

Katie Hisert, MD '06, PhD '06: "I have taken a position at National Jewish Health in Denver, CO. I am continuing to take care of adult patients with cystic fibrosis (CF) and I am building up my research program studying the role of monocytes and macrophages in CF airway inflammation. My lab is growing, and I will soon be looking for postdocs who are interested in chronic infection, macrophages, inflammation, and/or nontuberculous mycobacteria. I work closely with the macrophage research group at NJH, as well as the CF clinical and research group."

**Joanna Spencer-Segal, MD '11:** "I am an assistant professor of internal medicine in



URBAN OASIS: The terrace connecting Lasdon House with the Belfer Research Building

the Molecular and Behavioral Neuroscience Institute at the University of Michigan. I am a clinical endocrinologist focused on pituitary disorders, and at Michigan I participate in the Multidisciplinary Pituitary Clinic run by the Department of Neurosurgery for patients with pituitary pathology requiring both endocrine and neurosurgical expertise. I also run a basic neuroendocrinology lab and mentor students in the neuroscience graduate program. My husband, Yaniv, and I have two sons, ages 2 and 5. We love living in Ann Arbor and are in the process of moving from one historic home

'After 17 years with Bayer
I retired in October 2017. I
now volunteer at the Marine
Mammal Center in Sausalito,
CA, caring for Pacific
harbor seals during the
pupping season.'

- Carol Mirenda, MS '85



**CITY LIGHTS:** In this photo taken at the intersection of Fifth Avenue and 37th Street, a ghostly reflection of the Empire State Building can be seen in the middle distance.

to another—the 'new' one was built in 1899."

**Jade Edwards, MD '13**: "I will be graduating from a GI fellowship at the University of South Florida in June 2020 and have accepted a position as a newly minted gastroenterologist in Bend, OR, starting in September 2020!"

Matthew L. Goodwin, MD '13, completed his complex spine fellowship in

neurosurgery at Johns Hopkins and is currently an assistant professor of orthopedic and neurologic surgery at Washington University in St. Louis and attending spine surgeon at Barnes Jewish Hospital. His main focus is on spinal tumors, and his lab is currently investigating novel mechanisms by which targeting lactate metabolism can impede tumors. He lives with his wife and two children in St. Louis.

#### **Graduate School of Medical Sciences**

Susan Fitzpatrick, PhD '84: "I had the honor of being the 2019 Wilder Penfield Lecturer at the Montreal Neurological Institute in November. For someone trained in neurology this was a special honor."

Carol Mirenda, MS '85: "After one year of employment in a urology lab at Memorial Sloan Kettering Cancer Center, I moved to California, where I worked in the lab of Dr. Stanley Prusiner at UCSF. In 1997, Dr. Prusiner received a Nobel Prize in Physiology or Medicine for his lab's work on prions. After 14 years, I switched from academia to industry at Bayer AG in Berkeley, CA, the company's world headquarters for biopharmaceuticals. I worked as a molecular and cellular biologist and had the good fortune of assisting two drugs to market. After 17 years with Bayer I retired in October 2017. I now volunteer at the Marine Mammal Center in Sausalito, CA, caring for Pacific harbor seals during the pupping season as well as year-round helping the volunteer engagement team and as a photo archivist for the development department. I volunteer in the clinical lab at the center to satisfy my desire to work in a lab environment. I renewed my love of ice skating once in California; starting in 1991, I have pursued ice dancing with a passion. I recently took up tai chi, both hand and sword styles, and travel with my husband on an annual basis to Europe and beyond. Retirement is great; I highly recommend it."

Maureen Gannon, PhD '96: "I was appointed the inaugural associate dean for faculty development in the School of Medicine at Vanderbilt University Medical Center (VUMC) beginning September 1, 2019. I continue to be the PI of an NIH- and VA-funded diabetes research lab in the Department of Medicine at VUMC."

**Asif Rizwan, PhD '13**: "I joined the National Heart, Lung, and Blood Institute as

a program officer in July 2019. My area of expertise covers bioengineering and biophysics (microfluidics, imaging, nanomechanics, optics, microscopy, spectroscopy, Al, and data science). My interests are in sickle cell diseases, malaria, sepsis, metabolism, rheology, and the microphysiological system. Previously I worked as a science officer at Congressionally Directed Medical Research Programs and as a postdoctoral fellow at Johns Hopkins."

Savira Kochbar Dargar, MS '16: " am the deputy director of innovation, research, and strategy at Health Innovation Technology LAB (HITLAB) overseeing organization-wide digital health research and strategy projects. Along with that, I am the director of HITLAB's Women's Health Initiative and am leading the global movement and conversation around women's health technology and women in technology and entrepreneurship roles. As the director, I recently held a FemTech challenge in NYC where 120 innovators applied to compete on a pitch day. If you are an innovator or just interested in digital health, please reach out at sdargar @ hitlab.org or savira.dargar @ gmail.com."

**Sari Berman Hoban, PA '16,** is working in cosmetic dermatology at Westside Aesthetics in Los Angeles. She recently won a peer- and patient-nominated award as one of the "top 100 aesthetic injectors in America" for 2019–20.

**Julie Yang, PhD '16**: "I was promoted to senior computational biologist at Memorial Sloan Kettering in 2019. I am interested in computational analysis of cancer epigenomics."

**Ashish Rajadhyaksha, MS '19,** is the senior financial analyst of managed care at NewYork-Presbyterian and continues to work as a teaching associate in the Department of Healthcare Policy and Research at WCM.

'44 BA, MD '47—Peter S. Tolins of Berkeley, CA, March 6, 2018; retired physician. Wife, Gloria (Ellison), BS Nurs '45.

**'51 MD—Stanley J. Birnbaum** of New York City, January 16, 2020; vice chairman of ob/gyn at NewYork-Presbyterian/ Weill Cornell; veteran.

**'51 MD—E. William Davis Jr.** of New York City, May 1, 2019; ob/gyn; pioneer in the field of medical ethics; vice president of medical affairs emeritus, NewYork-Presbyterian/ Weill Cornell; humanitarian; director, Society for the Prevention of Cruelty to Children; active in community and professional affairs.

'48 BA, MD '51—William H. Jeffreys of Danville, PA, July 20, 2019; emeritus clinic director and neurologist, Geisinger Clinic.

'48 BA, MD '51—Edwin P. Russell Jr. of Rome, NY, September 18, 2019; physician; veteran; enjoyed hunting, fishing, Civil War history, family genealogy, music, and reading; active in community and professional affairs.

**'52 MD—Walter L. Peretz** of Palm Beach Gardens, FL, September 16, 2019; ophthalmologist; clinical professor of ophthalmology and surgeon at NewYork-Presbyterian/Weill Cornell; veteran; sportsman and sailor.

**'54 MD—J. Kenneth Herd** of Johnson City, TN, August 28, 2018; professor emeritus of pediatric rheumatology, East Tennessee State University; researched cystic fibrosis; active in professional affairs.

**'57 MD—Patrick J. Barry** of Miami Beach, FL, December 27, 2019; orthopedic surgeon; pioneer in arthroscopy; founding physician, Palmetto General Hospital; served on medical missions; created a reconstruction of King Tut's head; veteran; actor.

**'57 MD—Waid Rogers** of San Antonio, TX, November 18, 2019; vascular, transplant, and general surgeon; founding faculty member, University of Texas Medical School, San Antonio; chief of surgery, Audie Murphy VA Hospital; investigated immunological tolerance in transplanted tissue; author; veteran; active in professional affairs.

**'59 MD—Allan R. Compton** of Los Angeles, CA, 2019; psychiatrist, Semel Institute for Neuroscience and Human Behavior.

**'61 MD—Michael M. Heeg** of Sea Island, GA, December 2, 2018; urologist; veteran; enjoyed squash, tennis, and painting; active in community, professional, and religious affairs.

**'62 MD—Donald W. Abel** of Naples, FL, July 6, 2019; surgeon; sports official; veteran; avid bridge player; active in professional affairs.

#### We want to hear from you!

#### Share your news with your classmates

Email Chris Furst: cf33@cornell.edu

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## **Answering the Call**

For Nicole Luche, MD '20, and her classmates, it's a profound time to enter medicine

In mid-April, Nicole Luche, MD '20, became one of sixtyeight fourth-year students at Weill Cornell Medicine who opted to graduate six weeks early so they could aid in the battle against COVID-19 before beginning their internships this summer. These new MDs, representing more than half of the medical college's 2020 graduates, have been working remotely and don't have hands-on roles in clinical care. But their contributions have been invaluable—from participating in research on the pandemic to following up with patients who've been discharged. Luche, who matched in internal medicine at the University of Pittsburgh, was assigned to help an analytics IT team at partner hospital NewYork-Presbyterian with various projects, such as optimizing the smartphone apps that hospitalists use daily for purposes like secure providerto-provider communication. In mid-May, the Seattle native—then living in western Massachusetts with her partner, an EMT-reflected on her experience as a member of the Class of 2020, the first cadre of medical students in more than a century to graduate into a global pandemic.

ll of us came to medicine with the desire to help people, give back to our communities, and contribute in a fundamental

way to health and wellbeing. So when the call came, we were so close to graduating we felt it was important to help however we could. But there was also some hesitancy, because we wanted to make sure we'd be useful and not get underfoot, take up clinicians' valuable time to train us, or use PPE that was needed elsewhere. When it was decided what roles we could occupy—remote work using skills we already have—many of us felt much better about being able to help relieve the clinical burden.

Intern year is daunting regardless of when it comes along, and ours is happening at a time when the clinical need is very,

very high. But we're excited that we'll soon be doing what we came to medical school for: providing care to patients. I don't want to minimize that it's scary from a wellness and safety perspective; many of my classmates worry they might become sick or put family members at risk. And reading

stories in the lay press about physicians interacting with a lot of very sick patients at once, confronting death every day—thinking that could be the environment we step into in June or July is also daunting. It's a balance of being excited to help, but worried about everything that comes with it.

There are also a lot of logistical hurdles right now. I've been



Nicole Luche, MD '20

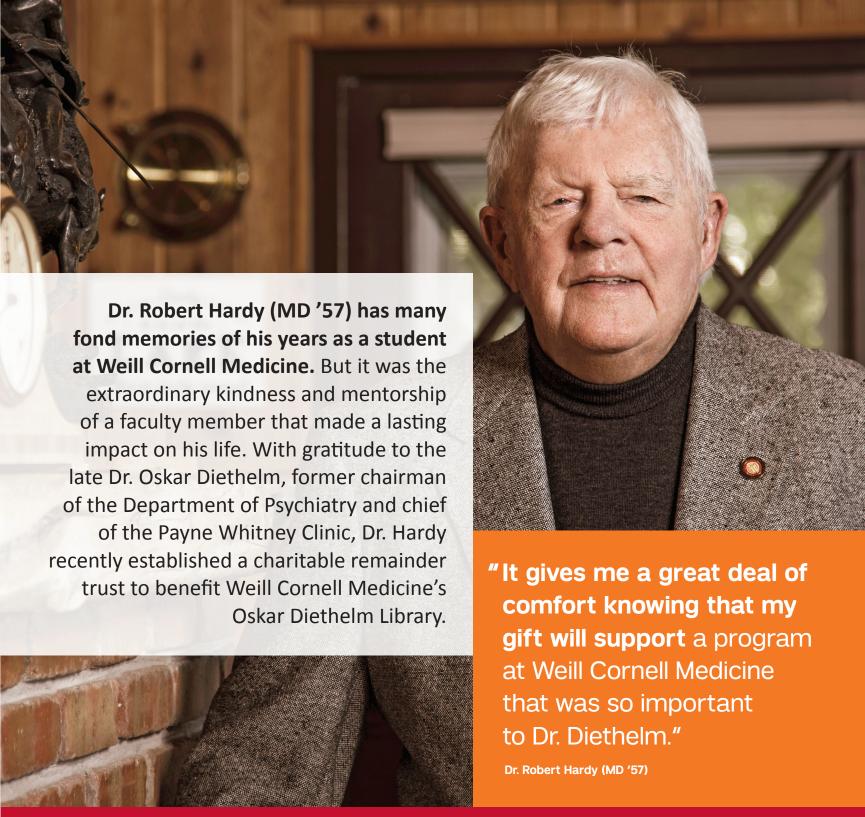
trying to get fingerprinted for a background check, but those offices aren't open. So we've all been in conversation with our residency programs: if we can't do a background check, how do we get our medical licenses? How do we build rapport with our intern class if we can't meet because of social distancing? Many of us left New York City when the pandemic was surging, and we'll need to retrieve our belongings and move. Once we do, will we need to self-quarantine for fourteen days? How will that impact our ability to participate in orientation?

Our education has prepared us to be physicians, but I don't

'We're excited that we'll soon be doing what we came to medical school for: providing care to patients.'

think there's anything that could have prepared us for this pandemic. My parents are nervous for me, because the risks are real. But they're proud there's someone in the family who will be able to contribute—to take care of people. In their eyes, and in mine, that's a noble calling.

— As told to Beth Saulnier



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