

Columbia Medicine

FALL/WINTER 2021

Columbia University Vagelos College of Physicians & Surgeons



“A Flourishing Present,”

Celebrating
Gains Toward
Gender Equity



Dear Colleagues,

This fall, as we optimistically see the pandemic case numbers dropping, we also celebrate a season of great news on multiple fronts related to our core missions. The incoming Class of 2025 distinguished itself by writing its own oath for this year's White Coat Ceremony in August. All of us who heard the 140 new medical students recite the oath were impressed with the class's thoughtful consideration of the meaning of the oath as it applies to their futures as health professionals. The class also is the *most* diverse class in Columbia's medical school history—28% are underrepresented in medicine—and we anticipate that the class will be actively involved in our continuing work toward full diversity, equity, inclusion, and belonging. The class also includes 10 first-generation college students, and this issue of the magazine includes a story on a VP&S club that brings together first-generation college students.

Also in this issue, we detail recent awards that recognize VP&S's progress in advancing equity for women faculty plus news of a new grant that will drive further progress. The cover story celebrates the leadership provided by Anne Taylor, MD, vice dean for academic affairs, and ongoing plans to achieve even greater success in gender equity.

Our campus is beginning to look more like the campus of old—2019: All students participating with in-person instruction, rotations resuming among clinical specialties, and many administrative staff members returning from remote locations to their campus offices. We hope these indicators will signal continuing improvement throughout the winter and spring months of 2022.

This issue welcomes a new editorial board chair—Dr. Lisa Mellman '19 HON, senior associate dean for student affairs, who succeeds Dr. Tom Morris '58, who chaired the editorial board for 21 years. Thank you, Dr. Morris, for more than two decades of service to the magazine. Your successor, Dr. Mellman, has been on the editorial board since 2006, so we are confident your stewardship passes into wonderful hands.

With best wishes for 2022,

Anil K. Rustgi, MD

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By Christina Hernandez Sherwood

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VP&S faculty were constantly learning about the SARS-CoV-2 virus during the pandemic as strategies for treating patients infected by a new virus evolved. Three VP&S alumni—two at Columbia and one at Cornell—had leading roles in riding the learning curve.

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By Danny McAlindon

The modern history of CF began in 1935, in the basement pathology lab of a Columbia faculty member. Today, patients are reaping the rewards of successful research and clinical advances since then.





“One of Us”

I was saddened to read your report of the suicide of Dr. Breen (Spring/Summer 2021 issue). In that piece you note that there is “an expectation that our health care providers be superhuman with no need for rest.” Then you ask, “Why is this part of the job?” The answer is that health care is a dynamic field, always changing. And when you take a job that initially feels doable and satisfying, over time the duties and responsibilities increase and slowly become less satisfying and impossible. This is not some-

thing that management perceives, because you are doing more work for the same pay, a stress to you, but a benefit to management which has achieved increased productivity from you for the same wage.

I always tell new physicians to save for the future by setting aside funds to allow them the time to change jobs when this situation requires a career change. You might be advised to anticipate facing this problem at least every 15 years. Or sooner.

William Reichert’69

Thank you for “One of Us.” Our local community recently lost two physicians to suicide. After the memorial services had passed, I was struck by the widespread hesitancy to speak about their lives or how we could honor them by changing the culture of medicine—one that fails to acknowledge the mental health challenges in many of us and one that often mislabels these challenges as failings. We need to be and do better, and kudos to Jennifer and Corey Feist for leading this charge.

Edward J. Yun’98

Broken Hearts

Thank you for publishing “Broken Hearts: Exploring Disparities in Diagnosis and Treatment of Heart Disease in Women” (Fall/Winter 2020 issue). When I was a medical student at P&S 20 years ago, it appeared that women were quite underrepresented in cardiology; I cannot recall seeing or interacting with any female attending physicians during my time on the cardiology service, though I did work with exactly two later during my internal medicine residency at another institution.

I was particularly intrigued to see the kind of care being provided by Dr. Axsom to an elderly woman who was ineligible for a heart transplant described as palliative care. In my experience, compared with physicians working in other specialties, cardiologists have been less likely to embrace the notion of palliative care or to have overt conversations with their patients acknowledging that sometimes doing less is doing more. In the rural area where I practice, we achieve similar outcomes as Dr. Axsom’s team by doing a different kind of remote monitoring. By providing home-based palliative care that focuses on frequent

non-invasive assessment of patients’ signs and symptoms, and offering patients the option to transition to hospice when their life expectancy is thought to be less than six months (12 months for Medicaid patients in New York State), we reduce acute care visits and hospitalizations by providing interdisciplinary support to patients and their families. Palliative care—whether via continuous pulmonary artery pressure monitoring or 24/7 nurse support with the help of social workers, home health aides, massage therapists, and volunteers—nearly always improves the quality of life of the patients involved. Furthermore, while studies of palliative care are complicated (it is unlikely that a double-blind randomized controlled trial of hospice vs. usual care, or hospice vs. remote pulmonary artery pressure monitoring, would fly), some research notably suggests that palliative care, and even hospice care, also improve quantity of life, including for heart failure patients. There are few patients who would not choose to feel better and live longer if the option were gracefully presented to them.

The implication that it has taken a team of female physicians to more fully explore how both biology and bias impact the care of women with heart disease is admittedly frustrating; I suspect that most of us who practice medicine would like to think that we are dedicated to all patients, not just those who match us with regard to various demographic characteristics. However, it certainly lends credence to the notion that a more diverse cadre of physicians would improve the health of our diverse communities. I am grateful that, at least as suggested by Dr. Rustgi’s recent communication, Columbia is acknowledging the crucial importance of a more inclusive and equitable environment for all.

Beth Olearczyk’03

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Supporting First-Generation and Low-Income Students

The medical school experience is universally demanding, but students who are the first in their family to go to college and low-income students have additional, sometimes hidden, challenges, many of which are especially apparent at an Ivy League medical school.

With that in mind, the First-Generation and Low-Income Partnership (FLIP) aims to build community among first-generation and low-income—FLI—students, residents, and attendings. The student-run organization is sponsored by the VP&S Club and the Office of Diversity and Multicultural Affairs. It facilitates workshops, social events, panel discussions, and mentorship opportunities to address the disparities faced by FLI students.

“A lot of our classmates’ parents are doctors, and even though we have the same seat at the same medical school, it’s hard to imagine how different our journeys might be. We all wonder how our path might be different if we had that kind of figure in our lives,” says Megan Chung, a second-year student, first-generation student, and current president of FLIP.

For Ms. Chung and the group’s nearly 70 members, FLIP has helped level the playing field for students at VP&S by demystifying the medical school experience, including helping students understand the unique language of medicine that students who come from long lines of doctors have been exposed to throughout their lives.

“We really want to focus on the hidden curriculum,” says second-year student Shivem Shah, vice president of FLIP. The hidden curriculum refers to the academic requirements and implicit social rules of higher learning—those unwritten mores and expectations of academia and college life—that are often foreign to first-generation students.

“Students who have family members who are doctors or just have a stronger exposure to the field already know so much—they knew this language when they arrived,” Mr. Shah says. “But that was completely foreign to many FLI students, so having those conversations amongst ourselves has been very important. It allows us to talk about imposter syndrome, to talk about our fears, and find a sense of community and the resources we need to catch up and be prepared.”

The group also helps FLI students navigate financial aid, share advice, and find resources. Earlier this year, FLIP helped dozens of students apply for funding through the CARES act, which VP&S distributed based on financial need.



Pins help members identify one another and create a sense of community. “They allow people to come up to me and immediately understand, ‘I am an FLI student. I’m someone that you can talk to about your experiences,’” says Shivem Shah, FLIP vice president.

“Columbia’s Financial Aid Office is really generous, and that aid has allowed us to be in this space, but we still don’t have the same capacity to socialize as our classmates,” Mr. Shah says. “Spending money is harder to come by when you’re truly living on a budget. That can be inherently limiting at an Ivy League school, especially in a city like New York.

“Talking about those issues can feel taboo, or like something you don’t want to bring up because it can feel embarrassing, even if it shouldn’t be. I’ve had a lot of FLI members come up to me when we host socials and say, ‘It’s so nice to have someone that gets it. It’s so nice to be part of a community where we can talk about it and to have a space where we can socialize without the constraints that our upbringing may provide us.’”

As part of a new pilot program, FLIP is recruiting faculty members to serve as mentors to FLI students. Diversity and Multicultural Affairs helped build a database of FLI-identifying faculty

who are available to mentor. FLIP matches students with faculty members based on shared interests, backgrounds, or specialties.

This fall, the group welcomed three official faculty advisors: Hilda Hutcherson, MD, senior associate dean for diversity and multicultural affairs and professor of obstetrics & gynecology; Mara Minguez, MD, assistant professor of pediatrics at VP&S and of population and family health at the Mailman School of Public Health; and Paulette Bernd, PhD, professor of pathology & cell biology and director of the clinical gross anatomy course and the anatomical donor program.

“I heard about this group and immediately felt connected to them,” says Dr. Bernd, herself a first-generation college graduate from Washington Heights. “I didn’t have the kind of help you might have from parents who know more about navigating college. As a student, I felt out of place. I felt like I didn’t belong with all these other rich kids whose parents were all doctors and who came up through the ranks in a very different way than I did.”

Through the first-year gross anatomy course, Dr. Bernd was already a familiar face and a source of support for many first-year students. Her new work with FLIP feels like a natural extension of her role as a first-year mentor.

“Some of the work is just emotional support, to validate them and to make them feel like they do belong here and that they’re as good as everyone else,” she says. “It’s important for them to hear. They wouldn’t be here if they weren’t really good.”

Dr. Bernd and other faculty participated in welcome dinners for the first-year students this fall. She also regularly takes first-year students to ballet performances as a way of acclimating them to the city and making them feel welcome. For many students, these evenings are the first time they have attended a dinner party or a performance.

“The typical Columbia med student is so privileged,” says Dr. Bernd, “but nowadays, a larger and larger percentage of the class is less so, given Dr. Vagelos’ generosity in providing scholarships that replace loans. More and more students can come to VP&S, students who might not have ever been able to before. It’s great.”

FLI students are eager to express their gratitude for the generosity of VP&S donors and faculty for scholarship support and mentorship alike. FLIP members are paying that generosity forward with downstream mentoring of their own.

“So many members of this community are incredibly generous. They’re not only seeking mentorship, but looking for ways to be mentors as well,” Mr. Shah says. The group has reached out to several local high school organizations and the Columbia undergraduate FLI chapter to organize mentoring programs for students interested in medical school.

“If they’re interested in med school, we really want to give them the all-access pass,” Mr. Shah says. “We want to give them everything they need to understand what it takes to get here and succeed as a Columbia med student.”

—*Danny McAlindon*



EILEEN BARROSO

Newest VP&S Students Recite Their Own Oath at White Coat Ceremony

The 140 members of the Class of 2025 were welcomed into the profession of medicine at August’s White Coat Ceremony with the usual traditions but with one twist: The class decided to write and recite a new class oath that updated the Hippocratic Oath usually recited each year.

Students decided on a new oath (see next page) that better reflects the values they wish to uphold as they enter their medical training. The oath includes a commitment to “acknowledge and embrace the diversity that exists within all communities, and the formative influence that the Washington Heights community will have on my future as a physician.” This year’s ceremony at the Armory was an in-person event with limited faculty and guests. The ceremony was also available via Zoom.

The idea for a new oath came up in 2020 shortly before the White Coat Ceremony for the Class of 2024. The students did not have enough time to develop a new oath, so members of the Class of 2024 asked to help members of this year’s incoming class develop a class oath. The writing took place over many weeks during the summer, with current MD students trained by the VP&S education office as writing facilitators to work with incoming students and collaborating faculty members. Going forward, each incoming MD class will have the opportunity to create its own oath.

The VP&S Class of 2025 has more students from underrepresented minority backgrounds than any medical school class in Columbia’s history.

Earlier in the week, VP&S Alumni Association staff distributed personally engraved stethoscopes to each member of the Class of 2025. Stethoscopes are donated each year by VP&S alumni to welcome new students to the medical profession. More than 2,000 stethoscopes have been donated since the tradition began in 2007.



ABOUT THE CLASS OF 2025

140 students

- 112 MD students
- 14 MD-PhD students
- 10 Columbia-Bassett students
- 2 PhD-to-MD students
- 2 oral and maxillofacial surgery students

69 women/71 men

39 underrepresented minorities (28%)

10 first-generation college students (7%)

8,080 total applications

852 applicants interviewed

60 colleges represented

34 states represented

12 foreign countries represented

CLASS OF 2025 OATH

"We enter the profession of medicine with appreciation for the opportunity to build on the scientific and humanistic achievements of the past. We also recognize the acts and systems of oppression effected in the name of medicine. We take this oath of service to begin building a future grounded in truth, restoration, and equity to fulfill medicine's capacity to liberate.

I make this pledge to myself, my classmates and future colleagues, and the individuals and communities I will serve.

I acknowledge that my role is to inform my patients, accompany them in moments of wellness and vulnerability, and respect their privacy and autonomy while empowering them to flourish.

I promise to take care of my future patients by engaging in dialogue, listening to their lived experience, and tailoring my recommendations to their unique circumstances.

I commit to honor the relationship formed between patient and physician by maintaining confidentiality at all times.

I vow to contribute to the field of medicine through ethical study and equitable evidence-based care, and to treat my patients and represent my profession with compassion, humility, and equanimity.

I acknowledge the past and present failures of medicine to abide by its obligation to do no harm and affirm the

need to address systemic issues in the institutions I uphold.

I promise to critically examine the systems and experiences that impact every person's health and ability to receive care.

I vow to use this knowledge to uplift my patients and disrupt the injustices that harm them as I forge the future of medicine.

I acknowledge the background and experiences that enrich my perspectives while recognizing the limitations, shortcomings, and biases that I bring to each encounter with patients and colleagues.

I promise to self-reflect diligently, to confront unconscious prejudices, and to develop the skills, knowledge, and character necessary to engender an inclusive, equitable field of medicine.

I commit to fostering empathy and a culture of care, not just for our patients but for ourselves and our colleagues in healthcare.

I vow to remember the humanity and fallibility of myself and every member of the care team, and to call upon my colleagues for assistance in recognition of the limits of my knowledge and skills.

I acknowledge and embrace the diversity that exists within all communities, and the formative influence that the Washington Heights community will have on my future as a physician.

I promise to respect, regardless of identity or socioeconomic status, the fundamental dignity of all patients, colleagues, and community members, and their right to quality care.

I vow to restore trust where it has been broken and to inspire and nurture trust in the relationships I build with patients, through collaborative effort with my classmates, colleagues, and communities.

Let us bow our heads in recognition of the gravity of this oath; we swear to faithfully engage with these ideals and obligations for the ongoing betterment of medicine and humanity."



JENNY GORMAN

Historic NYC Ticker Tape Parade Honors Health Care Heroes

Health care heroes and other essential workers from throughout New York City marched in a ticker tape parade on July 7 through the Canyon of Heroes in lower Manhattan. The Hometown Heroes Parade celebrated the contributions of all essential workers throughout the pandemic. The parade’s 14 floats represented 260 groups of essential workers. Health care workers, food service professionals, transportation workers, and other groups participated in what the news media reported was one of the largest ticker tape parades in the city’s history. Close to two dozen representatives from Columbia University Irving Medical Center waved to cheering onlookers as they marched up Broadway from Battery Park to City Hall. “It was surreal. I couldn’t believe how many people showed up to celebrate,”



says Tsion Firew, MD, assistant professor of emergency medicine at VP&S. “The second we turned that corner, we saw this sea of people. It just felt unreal to see how much

people appreciated us and to see how grateful they were. There were people of all ages in that crowd—people who had survived COVID and people who believe in science.”

News in Brief

Immunologist **Sankar Ghosh, PhD**, was elected to the National Academy of Sciences in recognition of achievements in original research. Dr. Ghosh, the Silverstein and Hutt Family



Sankar Ghosh

Professor of Microbiology and chair of the Department of Microbiology & Immunology, studies the connection between the immune system and various

diseases, from cancer to sepsis to diabetes and more. He is interested in deciphering the complexities of transcriptional regulation—the ways by which a cell regulates the conversion of DNA to RNA—to better understand the mechanisms of the immune system and the pathological changes that occur to its pathways in many diseases.

Three VP&S faculty members—**Rene Hen, PhD**, **Elisa Konofagou, PhD**, and **Jennifer Manly, PhD**—were elected to the National Academy of Medicine. Election to the academy is considered one of the highest honors in the fields of health and medicine and recognizes individuals who have demonstrated outstanding



Rene Hen

professional achievement and commitment to service. Dr. Hen, professor of neuroscience and of molecular pharmacology & therapeutics (in psychiatry), was elected for discovering the role of neurogenesis in the mechanism of action of antidepressant medications and making seminal contributions to the understanding of serotonin receptors in health

and disease. Dr. Konofagou, the Robert and Margaret Hariri Professor of Biomedical Engineering and professor of radiology (physics), was elected for leadership and innovation in ultrasound and other advanced imaging modalities and their application in the clinical management of such health care problems as cardiovascular diseases,



Elisa Konofagou

neurodegenerative diseases, and cancer, through licensing to the major imaging companies. Dr. Manly, professor of neuropsychology (in neurology, the Gertrude H. Sergievsky Center, and the Taub Institute for Research on Alzheimer's Disease and the Aging Brain), was elected for her pioneering work improving detection of cognitive impairment among racially, culturally, and socio-economically diverse adults



that has had a profound impact on the field of neuropsychology and her visionary research on the social, biological, and behavioral pathways between early life education and later life cognitive function.

Columbia was awarded a \$61.7 million NIH Clinical and Translational Science Award, the fourth award received since 2006. The grant supports the work of the [Irving Institute for Clinical and Translational Research](#), which works in partnership with researchers and clinicians across the medical center, NewYork-Presbyterian, and the New York State Psychiatric Institute to support all phases of clinical and translational



The fifth annual [Velocity Ride](#) to raise money for the Herbert Irving Comprehensive Cancer Center raised \$1.1 million in October. Some individuals participated in person on Velocity Day while others raised money through activities completed in advance. More than 540 people participated in this year's fundraiser. Over the past five years, more than 3,000 people have participated in Velocity and raised \$6 million for clinical care and cancer research at Columbia's cancer center.

science. Columbia has received CTSA grant renewal every five years since the NIH program began in 2006. The latest grant means more than \$200 million has been received to support the Irving Institute from 2006 through 2026. This year's application for renewal received a perfect overall score from the NIH review committee.

The [Columbia-Pfizer Clinical Trials Diversity Initiative](#)

has been established through a three-year, \$10 million grant from Pfizer to help reduce health disparities by increasing the participation of underrepresented minorities in clinical trials and enhancing the diversity of clinical researchers. "People of different ethnicities can have different responses to the same medicine or treatment, so a lack of diversity among clinical trial participants means doctors cannot know if the treatment will be effective in all the patients they treat,"

says Anil K. Rustgi, MD, interim executive vice president and dean and director of the Herbert Irving Comprehensive Cancer Center. The initiative will examine the barriers that prevent participation by individuals from underserved groups, expanding Columbia's Community Health Workers Program network that connects with underserved populations and creates culturally sensitive engagement tools. To improve diversity among clinical research faculty and staff, Columbia will help build an additional pipeline of diverse clinical investigators through a new National Diversity Clinical Trials Leadership Program.

Two scientists will receive Columbia's [2021 Louisa Gross Horwitz Prize](#) for trailblazing work on messenger RNA vaccines for COVID-19. The prize is scheduled to be given to the recipients, [Katalin Karikó, PhD](#), and [Drew Weissman, MD, PhD](#),

at a Jan. 5, 2022, ceremony. Decades of research on messenger RNA by Drs. Karikó and Weissman laid the foundation for the creation of the effective COVID-19 vaccines, the first fully approved vaccines that use mRNA. Developed less than a year after scientists in China originally identified and sequenced the virus, the vaccines demonstrate one of the main advantages of the mRNA platform: They are much quicker to produce than traditional vaccines. Previously, no new vaccine had been developed and approved in under four years. Dr. Karikó, from BioNTech in Germany and the University of Pennsylvania, and Dr. Weissman, from the University of Pennsylvania, are the 107th and 108th winners of the Horwitz Prize, which is awarded annually by Columbia University for groundbreaking work in medical science. Of the previous Horwitz Prize winners, 51 have gone on to receive Nobel Prizes.

By Jeff Ballinger

New Treatment Resource for Lyme Disease Patients

Columbia has launched a research-integrated treatment center devoted to treating Lyme and other tick-borne diseases and a clinical trials network that will explore new treatments, with the help of a \$16 million gift from the Steven & Alexandra Cohen Foundation.

The Cohen Center for Health and Recovery from Tick-Borne Diseases represents the first center in New York City to offer affordable, dedicated treatment for children and adults with Lyme and related diseases.

“Lyme and other tick-borne illnesses are conditions that have both acute and late stage presentations. While most clinicians can recognize and treat the well-known rash, many are less confident about how to help individuals with late neurologic or relapsing persistent symptoms,” says Brian Fallon, MD, the founding director of the Cohen Center for Health and Recovery from Tick-Borne Diseases.

National annual estimates of Lyme disease are steadily rising, and a recent study of insurance data suggests 476,000 people in the United States are diagnosed with and treated each year for Lyme. Though antibiotics help many patients, approximately 10% to

20% of infections will lead to distressing and potentially disabling symptoms, such as severe fatigue, joint and muscle pain, and cognitive problems that may last for months or years.

“Like COVID-19 ‘long-haulers,’ many people with tick-borne diseases were completely well until their infection precipitated a cascade of chronic, multi-system effects,” says Dr. Fallon.

Shannon Delaney, MD, medical director of the Cohen Center, says, “Many patients with chronic symptoms related to tick-borne illness are misdiagnosed with conditions such as depression, chronic fatigue syndrome, or even psychosomatic disorders as physicians may not be aware of the chronic pain, fatigue, and cognitive problems that can accompany tick-borne illnesses.”

Dr. Fallon says the Columbia center addresses these issues by offering affordable comprehensive assessment and care provided by experienced physicians. The center integrates research and the training of a new generation of clinicians through fellowship programs. Since August 2021, family, integrative, and behavioral medicine specialists have seen patients via telemedicine. In-person treatment for patients with acute or chronic symptoms will begin in the spring of 2022 in the center’s clinical space located in the Neurological Institute.

Columbia also is the coordinating center for the new clinical trials network—the first in the nation for Lyme and other tick-borne diseases. The network, which includes experts from Johns Hopkins University School of Medicine and Children’s National Hospital in Washington, D.C., will focus on conducting rigorous research to identify more effective treatments for patients with Lyme and tick-borne diseases. The center welcomes suggestions from academics, community physicians, and the general public.

Cohen Center patients will be invited to enroll in clinical trials of new treatment approaches and in biomarker studies to improve the targeting of treatment to disease process.

“There’s been little research into the most effective treatments for those with persistent symptoms,” says Dr. Fallon, “and the clinical trials network will be a powerful engine to drive high-quality studies in tick-borne disease.”

More information: www.columbia-lyme.org/cohen-center-health-and-recovery-lyme-and-tick-borne-diseases



GETTY IMAGES

Hope for Opioid Use Disorders

The **opioid crisis** in the United States has only worsened during the COVID pandemic, with deaths from opioid overdoses surging from 2019 to 2020, an increase driven largely by fentanyl and other synthetic opioids.

Columbia researchers are exploring two innovative treatments—a naltrexone implant and a vaccine—that could help more people with opioid use disorder and save lives.

The naltrexone implant is being studied by Adam Bisaga, MD, professor of psychiatry, and Christine Rohde, MD, professor of surgery, in collaboration with the implant's Australian inventor, George O'Neil, MD.

At Columbia, Drs. Bisaga and Rohde are testing the effectiveness of the implant, which is inserted under the skin of the abdomen and gradually dissolves, releasing naltrexone over six months. Naltrexone protects against relapse by binding to opioid molecules, reducing cravings, and blocking the euphoric effects of opioids.

Although opioid users can be treated with monthly injections of naltrexone, many patients stop treatment after two or three months, which is not long enough for most people to achieve long-term remission. By providing naltrexone over six months, the implant may offer longer-term benefits and reduce the number of relapses and overdoses.

In the trial, Drs. Bisaga and Rohde are measuring the levels of naltrexone released by the implant. "It is very important that the medication is consistently released throughout the treatment period, avoiding too high blood levels, which can produce adverse effects, as well as too low," says Dr. Bisaga.

Another potential long-lasting treatment is being evaluated in the nation's first trial of an experimental vaccine designed to treat opioid use disorder. Sandra Comer, PhD, professor of neurobiology in the Department of Psychiatry, is the principal investigator of the trial.

The experimental vaccine—developed by Marco Pravetoni, PhD, professor of pharmacology and medicine at the University of Minnesota—is designed to stimulate the immune system into producing antibodies that bind to oxycodone, a commonly abused prescription opioid. When oxycodone is bound to an antibody, the drug cannot enter the brain.

By reducing the amount of oxycodone that reaches the brain, the vaccine may reduce the feeling of euphoria that users crave. The trial is primarily designed to determine if the vaccine is well-tolerated and safe. Dr. Comer and colleagues also will determine if the vaccine produces sufficient antibodies and can prevent euphoria when the volunteers are given oxycodone.

Because the chemical structure of opioids varies, different vaccines would be needed for each opioid. The teams at Columbia and the University of Minnesota are working to develop similar vaccines against heroin and fentanyl.

Minimally Invasive Treatment for Enlarged Prostates

Columbia interventional radiologists are experts in prostate artery embolization, an emerging treatment for benign prostatic hyperplasia (BPH)—commonly known as an enlarged prostate. Although embolization is less well-known than medication and surgical options, prostate artery embolization is a minimally invasive technique that has been in use for the past decade.

"In general, embolization procedures have been used for more than 40 years by interventional radiologists," says David Sperling, MD, associate professor of radiology. "Though its use in the prostate is relatively recent, the concept is not new in medicine and interventional radiologists at Columbia are quite skilled at performing the procedure."

When symptoms of BPH interfere with quality of life, men are usually treated first with medications, which may cause side effects that include dizziness, drowsiness, and decreased libido. The next step is often surgical, including a commonly used procedure that delivers electric current to the inside of the prostate from an endoscope inserted through the penis. Surgical patients are typically hospitalized and use a urinary catheter for several days after the procedure.

In contrast, prostate artery embolization is a minimally invasive outpatient procedure that usually requires just a bandage and oral pain medication for recovery. Most men return to work in less than a week. During the procedure, an interventional radiologist uses X-ray and CT imaging to guide a catheter from an incision in the arm or leg to the blood vessels that supply the prostate. Tiny round beads—each the size of a grain of sand—are sent through the catheter and into the prostate-feeding vessels. The tiny beads embed in the vessels and block blood flow to the prostate, causing it to shrink. Recent studies have shown that urinary symptoms improve in close to 90% of patients who have the procedure, with many patients experiencing up to 10 years of good results.

Some men may not be good candidates for prostate artery embolization, but video and in-person consultations with Columbia interventional radiologists can determine the best treatment options.

Information: (212) 326-8874 or visit Columbia Radiology online at www.columbiaradiology.org/patients/services/interventional-radiology/prostate-artery-embolization

**Prizes Recognize
Advances Made
While New
Grant Could
Further Improve
the Status of
Women at VP&S**

By Danny McAlindon

Moving the on Gender Equity Needle

Photographs by Jörg Meyer



The Vagelos College of Physicians and Surgeons traces its origins back to the time of the American Revolution, but it was only a century ago that women were brought into the fold of medical education at Columbia. The first woman faculty member, Rosalie Slaughter Morton, MD, joined the medical faculty in 1916, and the college's first women students matriculated a year later in 1917, graduating in 1921.

But thanks to past and present efforts of trailblazers across the profession, today's medical professoriate is almost 50% women and are more accomplished than at any time in history. An award from the National Institutes of Health in August recognized VP&S for leading the way in the advance-

ment of equity for women faculty in biomedical and behavioral sciences. A few weeks later, the Association of American Medical Colleges announced it would honor Anne L. Taylor, MD, vice dean for academic affairs, for her role in that success, celebrating her leadership in the advancement of women in medicine at Columbia and beyond.

In considering the path of women at VP&S, Dr. Taylor—herself a faculty member, the John Lindenbaum Professor of Medicine—has worked with fellow faculty members and school leadership to honor the courageous past of women faculty, to maintain a flourishing present, and to keep a determined eye on the challenges that still remain.

Building It Up Better

Ask anybody about Anne Taylor, and the responses will be glowing. In addition to heading academic affairs for VP&S, she is senior vice president for faculty affairs and career development at Columbia University Irving Medical Center, a role in which she stewards the career growth, satisfaction, and recognition for all faculty across the medical center.

When Dr. Taylor arrived at Columbia in 2007, VP&S had no professional development programs for faculty. Women accounted for 38% of full-time faculty, and while that number was above the national average at the time, women faculty were not included proportionately in many important aspects of the school's decision-making processes nor did they have access to as high quality mentorship as men faculty.

Working in concert with Lee Goldman, MD, then dean, and many fellow faculty members, Dr. Taylor and her newly recruited team in the Office of Academic Affairs set to work to create an approach to faculty professional development that considered important determinants that have been shown to positively impact satisfaction, success, and vitality for all faculty. A few of these important determinants of faculty vitality include clarity in governance processes, development of networks of peers and appreciation by peers, support for academic advancement, and support for work/life integration. While the overarching task of the new Office of Academic Affairs was to support all faculty, an important guiding principle was to be sure that the specific needs of women and diverse faculty were identified and addressed.

Clara Lapiner, assistant vice president of faculty professional development, diversity, and inclusion, was among Dr. Taylor's first hires in the Office of Academic Affairs, where they have worked together



Anne Taylor

COURTESY OF ANNE TAYLOR

for 13 years. “It’s been an incredible journey, an immense privilege, and a huge learning experience to work with Dr. Taylor on implementing her vision,” Ms. Lapiner says. “Our team has been able to create impactful and sustained institutional change. To see her approach to this work—in building on these programs and initiatives, constantly incorporating faculty feedback, and making sure that our offerings served their needs—has been a phenomenal journey, and the work has continued to grow.”

The office’s approach has been multidimensional and faculty-driven with a focus equally divided among making sure that processes surrounding academic advancement were explicit and clear to all faculty; on inclusiveness in the award of honors and access to leadership development; and on making sure that specific knowledge necessary for success was available to all faculty groups. The team heard clearly from women and diverse faculty about the need for peer mentoring and support networks, so facilitation of such groups became an important facet of the office’s work. This approach was expanded to bring together faculty by academic pathways, so researchers, clinicians, and educators had the opportunity to meet and learn from others committed to the same type of work. Many women faculty take part in more than one peer group, sharing experiences both by demographic group and academic pathway groups. These groups encouraged shared knowledge, psychosocial support, and the opportunity for women to address issues specific to women.

An early CUIMC-wide project reviewed and clarified academic tracks. These are the pathways that define the work emphasis of faculty—whether clinician, researcher, or educator—as well as parameters for advancement in expertise and recognition. Advancement in rank is important because it signals growth in expertise and recognition and also because it defines eligibility for leadership positions and honors. While women faculty were steadily increasing in numbers, they were not being advanced in academic rank in proportionate numbers. The new system was broadly disseminated to both departmental faculty and leadership. In the year following implementation of this system, the percentage of newly promoted associate professors who were women rose from an average of 32-34% to 53%, followed by a more gradual but sustained increase from 40% to 50% in subsequent years. The percentage of newly promoted professors who were women also rose in the years following the introduction of the new tracks. The result of this change

in process is that the percentage of VP&S women at advanced rank has continued to grow ahead of the national averages for women in medicine, and women have been awarded more honors that require attainment of advanced academic rank. Currently, 58% of assistant professors are women who can now expect to advance to senior ranks and to be eligible for positions of leadership as well as honors and awards.

Skills training in leadership and management, taught by faculty from Columbia’s business school and Teachers College, was offered to all faculty, but these programs were also offered to women-only and diverse-only faculty cohorts, taught by faculty whose research work was focused on the impact of

Among full-time VP&S faculty, 49% are women, up from 38% in 2006.

gender and diversity on teams and leadership. Thus, women had the opportunity to understand general principles of leadership and management within the context of how gender might influence these roles. Group mentoring programs, targeted to clinician scientists, basic scientists, and educators, were also piloted for women-only faculty cohorts. These began spontaneously; a group of women faculty who met during one of the office’s sponsored leadership programs started meeting regularly, trading advice, and building a community that can help overcome common obstacles and advance their careers. Dr. Taylor’s group adopted the group’s model and formalized it to be replicated for others.

Today, the work of advising and facilitating mentorship has been expanded by faculty advisory deans, who lead group mentoring sessions, and the VP&S Office of Women and Diverse Faculty, an office recommended by the 2018 Dean’s Advisory Committee for Women Faculty and Dean’s Advisory Committee for Faculty Diversity and Inclusion. While peer mentoring programs are open to all faculty, they are most heavily used by women faculty. Additional group mentoring programs in similar formats are now also offered for diverse faculty and LGBTQ+ faculty cohorts. To encourage faculty to create and drive mentoring relationships, in concert with the Provost’s Advisory Committee, Dr. Taylor and Ms. Lapiner co-authored a “Guide to Best Practices in Faculty Mentoring” used universitywide as a resource for faculty.

Other programs to ensure all faculty have equal knowledge around career development and support include new faculty orientation; leadership and management training; workshops on career development and academic advancement; mentorship workshops; training in teaching and pedagogy, negotiation and conflict management, and research team management.

An important working principle has been to view all processes, policies, and procedures through the lens of gender equity. Thus, the office tracks faculty recruitment, advancement, leadership, and honors/awards among women and men. Feedback and evaluation of all programs are collected, reviewed, and used to improve existing programs as well as initiate new approaches. Careful data collection and review ensure that women are not only recruited and

An important working principle has been to view all processes, policies, and procedures through the lens of gender equity.

retained, but also included in organizational leadership, key decision-making committees, and nominations for honors and awards. Actions to advance gender equity at VP&S have included changes to governance and policies, particularly those that might inadvertently negatively impact women, with increased transparency of academic advancement, recruitment, and mentorship. Academic Affairs also focuses on salary equity, enhanced work/life support, faculty recognition, and regular review and reporting on gender and diversity metrics.

The August recognition by the NIH—the Prize for Enhancing Faculty Gender Diversity in Biomedical and Behavioral Science—was given to 10 organizations by the NIH Office of Research on Women’s Health. The award honors VP&S for programs that have led to improvements in gender diversity and equity among faculty members within departments, centers, or divisions. The aim of the prize is to share and promote the broad adoption of replicable, evidence-based institutional approaches to promoting gender diversity.

While not the only measure of success, the number of women faculty across all ranks and academic tracks is one indicator of progress. At VP&S, that percentage has grown from 38% in 2006 to 49%

in 2020, outpacing the current national average of 41% at U.S. medical institutions. Women in positions of leadership and as recipients of endowed professorships have also increased in this time frame.

“These numbers provide evidence of progress made not just towards increased gender representation, but towards true inclusion of women in all aspects of the institution, the most important measure of gender equity,” Dr. Taylor says. “We are energized by this success to continue to find new ways to support a more broadly inclusive faculty, one that is reflective of those whom we serve in the 21st century.”

A Mentor, Role Model, Woman of Action

Carol Mason, PhD, is professor of pathology & cell biology, neuroscience, and ophthalmic science at VP&S and principal investigator and chair of interschool planning at Columbia’s Zuckerman Institute. Dr. Mason joined the faculty in 1987 and participated in some of the earliest peer mentoring programming organized by





Dr. Taylor's office, including early meetings of the Virginia Kneeland Frantz Society for Women.

"It was fantastic, because peer mentoring was something that was fairly new then," Dr. Mason recalls. "I was able to meet people on the clinical faculty, as well as some basic scientists who were both junior and senior to me. It was really wonderful, and one of the beginning seeds of what Anne's been doing all these years. I still have these conversations with some of those same women today, all of whom have been very successful in science."

Dr. Mason later participated in the 2018 Dean's Advisory Committee for Women Faculty, which joined the Dean's Advisory Committee for Faculty Diversity and Inclusion to offer recommendations to build and expand programs, training, and engagement of the faculty to promote gender equity and diversity.

"Anne has convened so many of these committees, workshops, and peer mentoring groups in a very cool way," Dr. Mason says. "She has a very

focused and driven intent. She blends humor with forward thinking. A lot has been written about women in their ability to gain consensus and bring people along, and Anne does it skillfully."

Mimi Shirasu-Hiza, PhD, associate professor of genetics & development, also participated in the 2018 Dean's Advisory Committee. Dr. Shirasu-Hiza joined the faculty in late 2009 and initially struggled to acclimate to Columbia, especially as a mother with two small boys at home.

"Being a woman in science is hard. And it's particularly hard when you're starting a lab," Dr. Shirasu-Hiza says. "It was immediately following the financial crisis, I had two young children at home, and the first year could have ended up being really traumatic. But at Columbia, I had this cohort of fabulous young female faculty from different departments who supported each other, and one of the ways that we found each other was through Anne Taylor and her Office of Academic Affairs."

WOMEN CHAIR FIVE VP&S DEPARTMENTS.

From left: Lisa Kachnic, Radiation Oncology; Mary D'Alton, Obstetrics & Gynecology; Cory Abate-Shen, Molecular Pharmacology & Therapeutics; Rita Charon, Medical Humanities & Ethics; and Angela Mills, Emergency Medicine



CO-MENTORS NATHALIE MOISE AND MARWAH ABDALLA.

Says Dr. Moise: “We give each other advice on how to navigate academia and some of its minefields, how to say no, or whether or not it makes sense to say yes to certain opportunities.”

That community was a lifeline that helped Dr. Shirasu-Hiza overcome challenges, find new opportunities, and cope with the day-to-day challenges of being a woman in science. Today, as an accomplished scientist, Dr. Shirasu-Hiza credits Dr. Taylor for institutional change at VP&S.

“Systemic racism, systemic sexism—they’re just endemic to many institutions,” says Dr. Shirasu-Hiza. “The difference here in the last 10 years is that Anne Taylor really asks us, ‘What can we do about it?’ She asks, ‘What do you need? How can I deliver it to you?’ And then she does it. She’s a woman of action.”

She also credits Dr. Taylor for the advancement of mentoring and tenure-track advising, as well as regular check-ins and evaluations for junior faculty.

“What Anne Taylor is trying to do is make it part of the structure, ensuring that every junior person has a tenure-track advisory committee, that they have required face time with their department chair or the most senior person in their department, and then, eventually, go one step further and provide everybody with an evaluation,” she says. “She is trying to make sure that everybody has the opportunity to say, ‘What about my career? What about my needs? What about my resources?’”

Co-mentoring—mutual mentoring relationships among peers—has flourished under Dr. Taylor, with many of her mentees now mentoring each other. Marwah Abdalla, MD, assistant professor of medicine, joined the cardiology division in 2014. “I’ve known Dr. Taylor and have been one of her mentees for a long time now. I’ve been very fortunate and privileged to be within her division,” Dr. Abdalla says. “Anne has been great to me from day one as a fellow. She spends time with the fellows and is one of the clinical preceptors, so all of the fellows get to know her. She’s been an integral part of our education as fellows and beyond.

“Now as a faculty member, I’ve had the privilege of seeing more women being recruited into residency and fellowship across Columbia, and I get to also be a mentor. I’ve been very fortunate in that. As a woman, I’ve had so many female role models and people that I can go to as peers.”

One valued co-mentor for Dr. Abdalla is Nathalie Moise, MD, assistant professor of medicine. “The key part of this entire journey has been mentorship,” Dr. Moise says. “I’ve had so many collaborators here, some of whom I met through Dr. Taylor’s leadership and management course for women fac-

ulty, people I would have otherwise never met. That course helped launch a lot of relationships and I continue to work with those individuals. Marwah is just amazing as a co-mentor. We give each other advice on how to navigate academia and some of its minefields, how to say no, or whether or not it makes sense to say yes to certain opportunities.”

Even among a large network of supportive peers and co-mentors, Dr. Moise considers herself lucky to still count on Dr. Taylor as a mentor. She echoes the sentiments of almost anybody asked about Dr. Taylor and her value as an adviser, confidant, and friend: “You walk into her office and you feel like you’re at home. She’s mentoring a lot of people, but in every conversation, she always makes you feel like you’re the only person in the room.

“It’s rare to find someone so politically savvy, who truly understands everything that’s going on behind the scenes, and in that regard Anne is brilliant. She’s very honest, very protective, and she’s very invested in ensuring that women faculty excel. All those traits together are very, very rare, and she has made a huge difference in how I’ve navigated my career.”

Recognition for progress in gender equity and diversity should be shared, as Dr. Taylor is quick to say, and Dr. Shirasu-Hiza attributes progress to the community of women at VP&S who have made their voices heard. “The women here at Columbia are strong, they’re outspoken, they’re independent. We recognize each other. We see each other. I think that’s really important.”

Challenges Ahead

Ask any woman faculty member about the future, and the challenges they list share common themes. First, they hope to see the intersectionality of race and gender addressed in future work, ensuring that equity is being promoted universally across both race and gender. That work continues as part of the 2018 Dean’s Advisory Committee for Faculty Diversity and Inclusion, which assesses the environment for diverse faculty, identifies gaps and opportunities, and makes recommendations to further support faculty success and satisfaction. The work also is ongoing through the medical center’s 2020 Task Force for Addressing Structural Racism.

A call for greater attention to the tenure track for women is also on the to-do list to improve support for women faculty. While the number of women faculty grew to 49% from 2006 to 2020, tenured women faculty have experienced slower growth in

the same time frame, growing from 18% to 23%. The good news is that the data show that the pipeline for generating tenured faculty is robust: Women now account for 44% of tenure track faculty, and VP&S is strongly invested in the success of these and all tenure track faculty. “There is a slower rise in the increase in women appointed to tenure for several reasons. The tenure track for clinician and basic scientists is long with extensions for child care, and men have been in the majority for many years; however, the success rate for women who undergo tenure evaluation is equal to that of men. So it is key to continue to fill the tenure track pipeline with women,” Dr. Taylor says. “It is now a lag in time, not in opportunities.” VP&S encourages and supports the recruitment of tenure track/tenured women and has been successful in adding very strong tenured women scientists to the faculty. Their presence further encourages young women to see VP&S as a place to grow and develop their careers.

Finally, women faculty need better support of work/life balance. Women often are at the center of competing child care and eldercare responsibilities

“The women here at Columbia are strong, they’re outspoken, they’re independent. We recognize each other. We see each other.”

that can hinder their professional lives. Though this work/life stress was well documented before 2020, the COVID-19 pandemic brought these disparities into stark relief for health care providers across the country. “Men’s productivity during the pandemic increased, but women’s productivity declined,” Dr. Taylor says. “COVID-19 set women back so significantly that there is now mounting concern that women could be set back to where they were in the early 1990s or 2000s.

“Integrating family life and professional life has always been a big challenge for women,” she adds. “It’s always been viewed as a personal problem that women just have to figure out. But after COVID, examination and solutions to this chronic problem from an institutional perspective have become imperative. We are looking at ways to support child care and eldercare. Extensions in the tenure track have been helpful for women, but those in the non-ten-



More Perspectives from Women Faculty

DAVIDE BONAZZI

“When I think of the women who are pioneers in medicine and science and have paved the way for future women physicians, scientists, educators, leaders, and mentors, I aspire to follow in their footsteps and set an example for future women physicians. At Columbia, this dream has the potential to become a reality, because here we are surrounded by women who have accomplished the impossible and dared us to exceed expectations.”

— **Dominique D. Bailey, MD**
Assistant Professor of Pediatrics

“As a woman leader in my field I am learning to embrace the fact that I may approach things differently than my male colleagues. And it is precisely these unique perspectives that allow us to be more innovative and effective in our approach to new problems and projects. It’s so important to have diverse voices at the table to influence meaningful change. Working at Columbia has given me perspective, connections, and opportunity. Through managing diverse patient populations I witness the implications of health care delivery through many different perspectives. With the diversity of expertise that is represented within my department and across the medical center campus I have made exciting and rewarding connections with other clinicians and researchers. And the perspective and connections have given me the opportunity to extend my work into areas that I believe are both meaningful to my patients, the public and are rewarding for me.”

— **Stephanie Lovinsky-Desir, MD**
Assistant Professor of Pediatrics

“I started at Columbia in January of 2021. A pandemic is a strange time to be starting a new role anywhere, especially not getting to know my colleagues in person. But I’ve participated in some of the peer-to-peer networking programs offered by Dr. Taylor’s office, and it’s such an exciting place to be building community. I’m still in the early phases of building those connections and creating something more lasting, but they have been invaluable thus far. Columbia is a big institution, and finding your way to the right spots is challenging and takes time, but the enthusiasm of these groups certainly shines through and that alone makes me feel supported.”

— **Alexis Walker, PhD**
Assistant Professor of Medical Humanities & Ethics

“I have engaged in a number of Dr. Taylor’s initiatives to support women and diverse faculty, and I have found them enriching both personally and professionally. As a female faculty member at VP&S, I truly feel the support from the institution as it aims to recognize my unique needs and questions. After my first peer mentoring session, I found myself with new resources and mentors from across the trajectory of careers in medicine. It was truly a welcoming gift as new faculty at VP&S to feel so overwhelmingly supported not just in voice, but action.”

— **Trudi Cloyd, MD**
Assistant Professor of Emergency Medicine

“I am grateful for a supportive division and having found mentors generous with their time and experiences. Dr. Anne Taylor’s mentorship was critical to my development as a young faculty member because as a woman, mother, and a scientist from an underrepresented ethnic background, she understood firsthand the difficulties women physician-scientists face. We need support so that we can continue to grow our careers during challenging times like pregnancy, postpartum, and raising a young family. If we want to cultivate women in science, we have to understand their obstacles and accommodate them so that we do not lose our best and brightest.”

— **Elaine Wan, MD**
Esther Aboodi Assistant Professor of Medicine

“Through the leadership and mentoring activities at Columbia led by Dr. Taylor’s office, the Irving Institute of Clinical and Translational Research, the Department of Pediatrics, and NYP LEAD, I have been able to build a network of mentors and collaborators spanning age, gender, race, and ethnicity unlike that which can be achieved elsewhere. Being at Columbia has allowed me to successfully pursue research to reduce racial, ethnic, and socioeconomic disparities in childhood obesity. Perhaps most importantly, I feel that Columbia truly cares about fostering the development of a diverse academic workforce. For female researchers from underrepresented minority backgrounds like myself, Dr. Taylor, her staff, and programming ensures we can thrive.”

— **Jennifer Woo Baidal, MD**
Florence Irving Assistant Professor of Pediatrics

ure track still face delays and challenges integrating advancement given family obligations. The time has come for institutions to think creatively about that.”

In November, VP&S received a highly competitive grant from the Doris Duke Foundation, which will help identify ways the medical school can address this issue. The foundation’s COVID-19 Fund to Retain Clinical Scientists program offers grants of \$550,000 over two years to recognize exemplary efforts at U.S. medical schools to strengthen policies, practices, and processes to better support the research productivity and retention of early-career faculty with family caregiving responsibilities.

At VP&S, the grant will be used to support early career physician-scientists, allowing them to better utilize time, compete more effectively for external funding in clinical and translational sciences, enhance their ability to prevent and treat diseases, and ultimately enhance their contributions to the next generation of leaders in clinical research.

“The NIH and AAMC prizes that recognized our progress in gender equity were wonderful and not about me, but about what *we* collectively at VP&S have accomplished,” says Dr. Taylor, “but the Doris Duke grant will allow the school as a whole to tackle one of the largest remaining issues holding back the progress of women faculty: Family care-giving responsibilities that compete with professional responsibilities create a crushing burden for women. It’s time that we meet this challenge head on and forever change the landscape for women who want both families and careers in medicine and science.”

Recognizing One Person’s Impact

In November, Dr. Taylor received the AAMC’s 2021 Group on Women in Medicine and Science Leadership Award for an Individual. Since 1995, the AAMC has honored more than 30 individuals and organizations for their impact on professional development of women at the local, regional, or national level. The award recognizes contributions that promote women’s leadership, encourage and advocate for women in academic leadership, improve the educational and professional environment for sustaining women in academic medicine, or inspire women to be leaders.

“Dr. Anne Taylor meets all of those criteria for the award,” says Anil K. Rustgi, MD, interim executive vice president and dean of the Faculties of Health Sciences and Medicine. “As an advocate for women, she has promoted the recruitment, promotion, men-

toring, and retention of women faculty at VP&S, all the while acting as a role model for women who combine medicine and academic leadership. This award deservedly honors Dr. Taylor’s accomplishments and also brings credit and honor to Columbia.”

In an October presentation titled “Women at VP&S: Courageous Past, Flourishing Present, Future Challenges,” Dr. Taylor reflected on how far VP&S has come in promoting women in medicine. She discussed Dr. Rosalie Slaughter Morton and the first six women to graduate from VP&S in 1921, representing a little over 5% of their graduating class. Observing the centennial of their historic graduation in 2021, Dr. Taylor contrasted their numbers with the graduating class of 2021, in which 82 women made up nearly 53% of their class.

“As an advocate for women, Dr. Taylor has promoted the recruitment, promotion, mentoring, and retention of women faculty at VP&S, all the while acting as a role model for women who combine medicine and academic leadership.”

In discussing present-day progress for women faculty at VP&S, Dr. Taylor thanked the many individuals who contributed to the institution’s recent success and accolades. “This is not about me, but *we*, and all we have accomplished. This work has been embraced by the dean’s office, the departments, and divisions. This is a good moment for us to stop and appreciate what we have achieved and also consider where we are yet to go,” says Dr. Taylor.

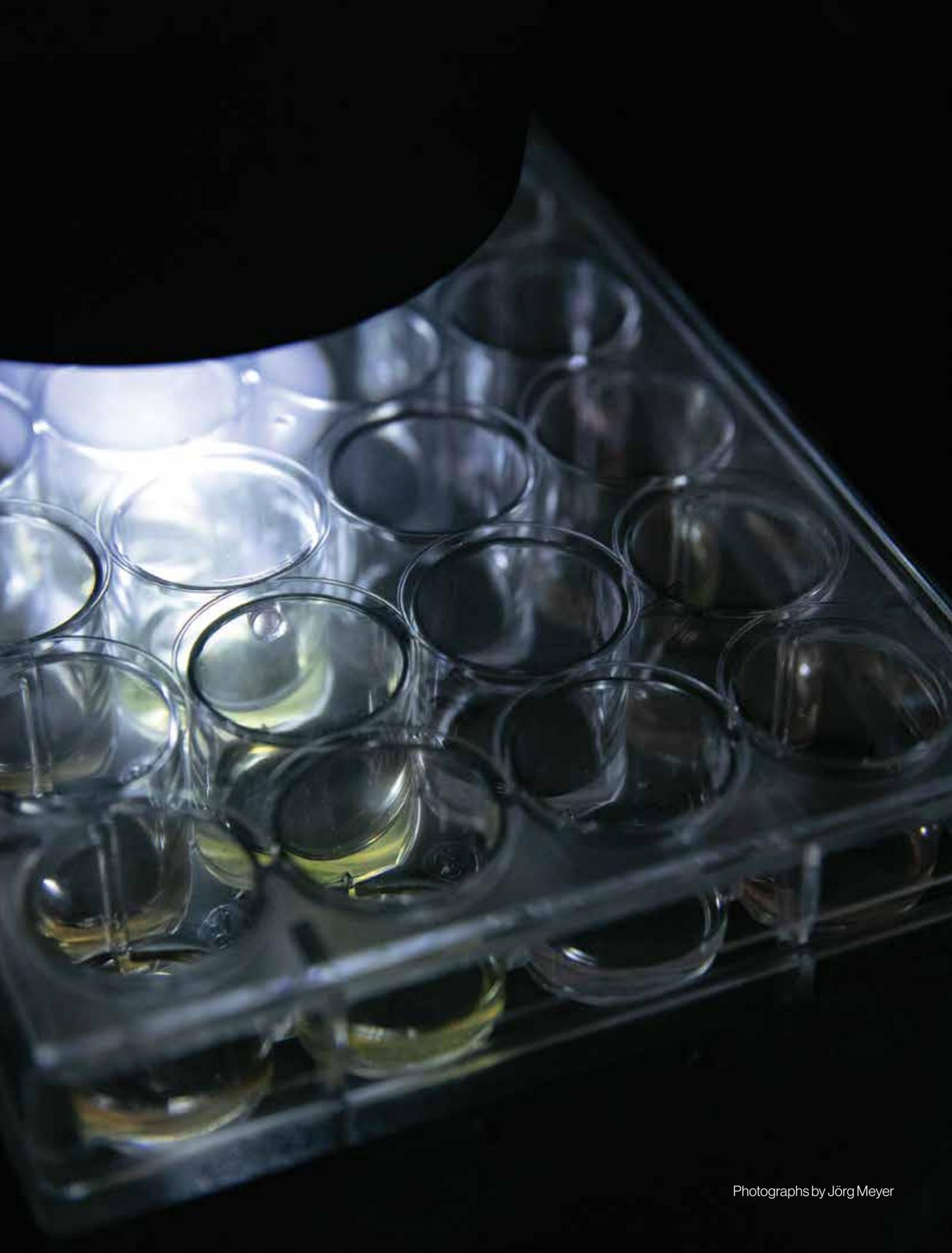
The school’s work is unfinished, but that doesn’t stop Dr. Taylor from encouraging women to consider careers in medicine and biomedical science. “Medicine is a wonderful, amazing, gratifying career. If I could do it for another 50 years, I would,” Dr. Taylor says. “I would encourage women of all races, ethnicities, and orientations to come into medicine. Women bring something special to the table—and we have the literature to prove it. Between family life and your career, being very strategic about how you portion your time is important. But be adventurous—and always step up on your own behalf and on behalf of other women.” ❖

Original Purpose
from Bequest—
To Identify Causes,
Prevention, and
Cures—Has
Spurred Growth,
Innovation

By Christina Hernandez Sherwood

CANCER CENTER AT 50

A close-up, high-angle photograph of a laboratory microscope, showing the eyepiece, objective lenses, and part of the stage. The image is in black and white, with a blue tint on the right side, and serves as the background for the text.



Columbia's cancer research program began in earnest more than a century ago when the millionaire son of a railroad magnate, after losing his wife to stomach cancer, died in his mid-50s of the same disease. Despite the tragic beginning, the program now known as the Herbert Irving Comprehensive Cancer Center has developed into the source of some of the most important cancer research of our time.

"I think of our cancer center as a combination of a think tank and a service organization," says Anil Rustgi, MD, the center's director since early 2019 and an expert in gastrointestinal oncology. "That's our credo. If we follow that credo, we're accomplishing our missions to advance science and medicine and to serve our members, our campus, our patients, our communities, and beyond."

The birth of Columbia's cancer research program can be traced to a 19th century ultimatum. When Charles Crocker, a founder of the Central Pacific Railroad, died in 1888, he bequeathed his children each a share of his fortune. But one son's inheritance came with a catch: George Crocker would not receive his \$6 million until he proved to his brothers he could abstain from alcohol for five years. George received his inheritance after eight years and a stint in a sanitarium. He lost his wife, Emma, to cancer then received a cancer diagnosis himself. When George died in 1909, he left \$1.5 million to Columbia for what the New York Times described as "the prosecution of researches as to the cause, prevention, and cure of cancer." The university established the Crocker Special Research Fund to oversee the research.

Today, 50 years since the National Cancer Act served as a catalyst for the growth and expansion of cancer research and care at Columbia, the HICCC spans six schools and 35 departments across Columbia. It has more than 250 members and associate members, including more than two dozen faculty who have been inducted into the National Academy of Sciences and/or the National Academy of Medicine. In 2020, the National Cancer Institute renewed the center's comprehensive designation through 2025, with outstanding merit and a 40% increase in funding.

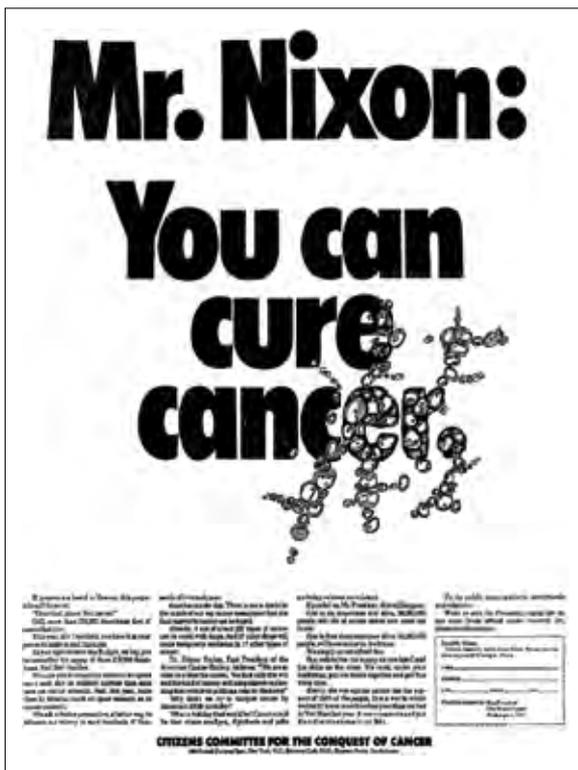
The next five—or 50—years are full of possibilities for the center. With a new clinical cancer building planned and the additional funding, aspirations are high. Says former director Riccardo Dalla-Favera, MD, the center's director from 2005 to 2011, "What I hope will happen, and what I think is happening, is a better exploitation of the enormous talent and discoveries that we have here at Columbia."

When President Richard Nixon declared a "war on cancer," the disease had become the second leading cause of death in the United States, a grim statistic that has not changed over the past 50 years. Nixon used the National Cancer Act of 1971 to assemble the troops, enlisting the National Cancer Institute to distribute grants that would build and support strong centers of cancer research across the country.

Columbia, already established in cancer research thanks to the Crocker fund (since organized as the Institute of Cancer Research and occupying two floors



Anil Rustgi



NATIONAL CANCER INSTITUTE



in what is now the VP&S Building), received one of the first NCI grants to create a new entity, the Cancer Research Center. The center eventually merged with the Institute of Cancer Research.

The Hammer Health Sciences Center, which opened in 1976, included nine floors of cancer research laboratories. And in 1979, the NCI awarded the fledgling Cancer Research Center “comprehensive” status, indicating that it was conducting both basic research and clinical trials, including those that enroll patients from across the country. The comprehensive status also acknowledged the center’s epidemiological studies of cancer in groups of patients.

The Columbia-Presbyterian Cancer Center—renamed in the early 1990s to reflect Columbia’s partnership with what was then known as Presbyterian Hospital—burst with scientific innovation over the next few decades. In 1977, center scientists Richard Axel, MD, Saul Silverstein, PhD, and Michael Wigler, PhD, developed gene transfer techniques that allowed the introduction of virtually any gene into any cell. The effect of these techniques on cancer research was immediate and profound, leading cancer research laboratories worldwide to discover malignantly activated oncogenes in human tumor cells. The process earned the University millions of dollars in licensing revenues from pharmaceuticals made possible by the gene transfer techniques. In the 1980s, Frederica Perera, PhD, DrPH, and I. Bernard Weinstein, MD, introduced the concept of molecular epidemiology to cancer research. And in 1993, Dr. Dalla-Favera, a cancer geneticist, identified the BCL6 proto-oncogene, a critical step in understanding lymphoma.

In recognition of a \$12 million gift from Herbert Irving, the co-founder of Sysco Corporation, the nation’s largest food distributor, the center in 1996 was given the name it maintains today: the Herbert Irving Comprehensive Cancer Center.

A new building, the Irving Cancer Research Center, opened in 2005. “Having most of the cancer research under the same roof was, by far, the most important point in the development of the cancer center,” says Dr. Dalla-Favera. “It led to a major expansion in research, which was underdeveloped before the building, and a very interactive environment, which put us on the map much more in cancer research.”

Many researchers consider the center’s collaborative atmosphere and 12 shared resources, such as a database service and a specialized microscopy facility, key to fos-

The National Cancer Act signed into law by President Richard Nixon in 1971 was the catalyst for the expansion of Columbia’s Herbert Irving Comprehensive Cancer Center, which has members from six schools and 35 departments across the university.

In 2020, the National Cancer Institute renewed the Herbert Irving Comprehensive Cancer Center’s comprehensive designation through 2025, with outstanding merit and a 40% increase in funding.

tering meaningful innovation. Richard Baer, PhD, joined the center in 1999 and led extensive studies of the BRCA1 breast cancer gene. He is now working with the center’s computational scientists to examine the DNA genomes of experimental tumors in mice to understand the impact of BRCA1 mutations on genome stability and breast tumor formation. “I’ve had the opportunity to get to know a num-

WHAT'S NEW IN FIGHTING CANCER



The legacy of innovation at the Herbert Irving Comprehensive Cancer Center will carry over into its next 50 years. Here are a few of the latest research and patient care initiatives:

RADIOTHERAPY: Artificial intelligence-driven radiotherapy has been available since the recruitment of Lisa Kachnic, MD, a pioneer in implementing novel and effective radiotherapies, to VP&S as chair of the Department of Radiation Oncology. She brings hands-on experience with Ethos, a nascent commercial technology that empowers clinicians to provide daily personalized patient treatments by leveraging advanced AI technologies. The Ethos system can efficiently image and detect daily variations in the location and shape of a patient's internal anatomy. Ethos uses this information and the radiation oncologist's prescription and treatment objectives to generate several new, custom treatment plans with the patient never leaving the treatment machine couch (i.e., "online" adaptive radiotherapy). After a thorough review validating the accuracy of the automated workflows, the radiation oncologist chooses the best plan to deliver for that day's treatment. An equivalent process using conventional technology typically requires hours of effort across multiple professional groups spanning days. Conversely, Ethos online adaptive radiotherapy treatments can be completed within approximately 30 minutes in a single outpatient visit.

DIVERSITY IN CLINICAL TRIALS: The Columbia-Pfizer Clinical Trials Diversity Initiative is intended to reduce health disparities by increasing the participation of underrepresented minorities in clinical trials, including cancer trials, and enhancing the diversity of clinical researchers. A three-year, \$10 million grant will fund the initiative to ensure that research reflects the diversity of the population. Says HICCC Director Anil K. Rustgi, MD: "Increasing diversity in trials will improve the treatment of patients from underrepresented groups and is a moral imperative as well as a fundamental medical issue." The initiative will examine barriers that prevent participation in clinical trials by individuals from underserved groups by expanding Columbia's Community Health Workers Program network to connect with underserved populations and create culturally sensitive engagement tools. The effort also will include identifying new ways to make clinical trials more accessible through telemedicine, wearable technology, and home visits. The training component of the initiative aims to help Columbia expand its pipeline of diverse clinical investigators

through a new National Diversity Clinical Trials Leadership Program to increase the number of faculty and staff from underrepresented groups.

PRECISION MEDICINE: The recruitment in January 2021 of physician-scientist Adam Bass, MD, to the HICCC has energized precision medicine. He is the founding director of the Center for Precision Cancer Medicine at Columbia and NewYork-Presbyterian/Columbia. The center will combine strengths in cancer research and care across multiple disciplines to exploit the interface of cancer biology and the development of new cancer diagnostics and therapies. "Our deep bench in basic and translational science coupled with our meticulous care and innovative clinical trials are the defect-discovering and phenotype-defining foundational aspects of precision cancer medicine," says Donald Landry, MD, PhD, chair of the Department of Medicine. "The new Center for Precision Cancer Medicine will build on and advance our efforts at the leading edge of the field of precision oncology." Adds Dr. Bass: "Instead of looking at cancer like a target to hit with a certain drug or therapy—a traditional, one-mutation-one-drug approach to precision medicine—we are looking at cancer like a game of chess, working to predict the appropriate combinations of drugs that are needed, based on the nuances of cancer biology, including how cancer cells adapt to specific drugs and how to integrate different classes of therapies. Precision cancer medicine is an ecosystem. Key to this ecosystem is laboratory research, working in the lab with not just cancer biologists, but computational biologists, systems biologists, biomedical engineers, and experts in many other fields to uncover how cancers work."

BREAST CANCER: A trend in oncology is the de-escalation of therapy, says Katherine Crew, MD, director of the HICCC Clinical Breast Cancer Prevention Program. "Can we spare some patients from unnecessary treatment? We don't want to overtreat breast cancer. As we understand the biology of these tumors a little bit better, one breakthrough is that we can better classify patients. There are different molecular tumor tests we use and a breast cancer index that give us the opportunity to personalize a woman's breast cancer care. Based upon a woman's tumor biology, we can assess who needs chemotherapy, who may benefit from extended hormonal therapy, who can do well with just five years of anti-estrogen therapy, and then we can spare them from a lot of the side effects that we've seen from some of these drugs."

ber of other cancer researchers on campus who have different skills in basic science,” Dr. Baer says. “We have real experts here.”

In 2012, Herbert Irving and his wife, Florence, gave an additional \$40 million to the cancer center, and the appointment of Stephen Emerson, MD, PhD, as its next director ushered in a five-year period of increased clinical recruitment and research, along with a buildout of the center’s portfolio of tumor types. As the laboratory side of cancer research continued to grow during this time, the center also expanded its work in population science and community outreach and engagement. The center was named an NCI Minority and Underserved Community Oncology Research Program, offering local residents greater access to clinical trials.

“A lot of our research focuses on disparities because we see it every day,” says Dawn Hershman, MD, a breast oncologist and co-leader of the center’s cancer population science program. “One of the great things about the center is that you can take care of anybody who walks in the door. That’s not true for all cancer centers.”

Dr. Hershman’s recent work focuses on how specific financial factors, such as having Medicaid insurance, can influence the quality of care a patient receives as well as the patient’s ultimate outcome. This knowledge can help providers make better decisions, she says, and could inform future health care policy. “We are in this incredibly diverse and rich community where we can take advantage of the experiences of the people around us,” Dr. Hershman says, “and learn a lot more, not just about the etiology of cancer, but also about how different it can be for different patients with different backgrounds.”

When Dr. Rustgi became the center’s sixth director, he streamlined research programs into four major areas: cancer genomics and epigenomics, precision oncology and systems biology, tumor biology and microenvironment, and cancer population science. New resources include a community outreach and engagement office to work with community members, cancer patients, and their families to reduce the burden of cancer; formal programs to strengthen diversity, equity, and inclusion; and a cancer research career enhancement core to provide cancer research training and career enhancement opportunities.

With more than \$30 million in new NCI funding, more than \$100 million in research grants, and a new

dedicated clinical cancer building planned, the center is poised for a new wave of growth and innovation. Dr. Rustgi says he anticipates advances in medicine to predict how an individual’s disease will progress or how a disease will impact groups of people based on common features. He wants to integrate the center’s voluminous clinical and research data into a tool that can be interpreted by both experts and patients. And Dr. Rustgi hopes to see an increased focus on cancer prevention.

“We understandably spend a lot of time on cancer care through cancer therapy,” he says, “but if cancer incidence can be decreased through prevention, it’s a healthy and holistic approach and benefits government and society.” ❖



Several members of the Herbert Irving Comprehensive Cancer Center pose for a photo outside the Irving Cancer Research Center building.





Among the many lessons learned during the COVID-19 pandemic was the rapid pace of evolving strategies needed to treat patients infected by a new virus. The speed at which the pandemic swept over the hospital made one intensivist say this on-the-job training made every doctor an ICU specialist.

The unprecedented pandemic was matched by an unprecedented response by physicians who had to adapt to evolving—and shifting—situations. Two VP&S graduates—Magdalena Sobieszczyk’98 and Roy Gulick’86—found themselves front and center of the ever-changing patient care environment from those first days. As infectious diseases chiefs at Columbia (Dr. Sobieszczyk) and Weill Cornell (Dr. Gulick), they collaborated closely to develop new treatment guidelines and strategies.

It was on-the-job training, in a sense, in a specialty many had not pursued or imagined, says another VP&S graduate, Natalie Yip’03, associate director of medical intensive care units and medical critical care service at NewYork-Presbyterian. “It wasn’t like they had to go through fellowship and learn the breadth of what we do as intensivists,” Dr. Yip says, “but they essentially became specialists in COVID ICU care.”

Dr. Yip worked hand-in-hand with a multidisciplinary group of colleagues at NYP/Columbia and Weill Cornell to develop an innovative staffing model while Drs. Sobieszczyk and Gulick aligned research activity and treatment guidelines at their respective schools.

ON-THE-GROUND LEARNING IN A PANDEMIC

By Alexander Gelfand

VP&S Response Ranged From a New Critical Care Staffing Model to Speedy Clinical Trials to Cross-Disciplinary Consultations

The resulting protocols and guidelines not only saved lives during the initial surge, but also ensured that clinicians a year later are in a much better position to treat COVID-19 than they were when SARS-CoV-2 first emerged.

“We have learned an awful lot,” says Dr. Gulick. “And it translates to lower mortality rates.”

EARLY DAYS

Dr. Yip vividly remembers what it was like trying to manage the first patients who arrived at NYP/Columbia in March 2020 suffering from a highly transmissible—and still highly mysterious—respiratory disease.

“How do we go in and out of the room? What does it look like to perform CPR?” she and her colleagues wondered. “We were literally rethinking how to provide care from tip to toe.”

Her colleagues in the division of infectious diseases found themselves in similarly uncharted waters, unable to recommend anything beyond supportive care. At the time, no proven treatments were available for SARS-CoV-2.

One potential antiviral candidate drug was remdesivir, an experimental drug that had been studied as a potential treatment for Ebola but had not been approved for

use in patients. After securing FDA permission to administer it to one patient, the care team anxiously waited for the drug to be delivered to the CUIMC Research Pharmacy, unsure if it would have any effect—and whether it would help or harm the patient.

“The uncertainty was unsettling, but the significance of this patient’s outcome sharpened everyone’s focus,” Dr. Sobieszcyk recalls.

The patient eventually recovered. And as the influx of COVID-19 cases quickly became a surge—by mid-April 2020, the NYP hospital system admitted more than 7,600 COVID-19 patients—Drs. Yip, Sobieszcyk, Gulick, and their colleagues helped create an infrastructure for treating them.

They restructured how ICUs were organized, staffed, and managed. They developed treatment guidelines that continued to evolve as they learned more about the virus and the drugs that could alter its course—knowledge that was gained in part through their own data collection and clinical trials.

REIMAGINING CRITICAL CARE

As the number of severely ill patients requiring unusually long ICU stays continued to rise, patient bed-flow and ICU capacity quickly became pressing issues.

Ordinarily, Milstein Hospital maintains 117 ICU beds, including 24 medical ICU beds. By mid-April, however, the number of ICU beds had risen to approximately 300—a feat that Dr. Yip and her colleagues accomplished by converting all available spaces into surge ICUs.

With many services suspended, pop-up ICUs were constructed in settings from operating rooms to cardiac catheterization labs. Intensivists began repurposing OR anesthesia machines and prepared to split ventilators between multiple patients. And they began using telemedicine internally to preserve personal protective equipment and minimize exposure to the virus.

Staffing up to deal with a massive influx of critically ill patients presented another challenge, with the principal issue being the shortage of personnel with critical care expertise. As ORs shut down and health care professionals arrived from around the country to volunteer their services, plenty of personnel were available but not enough with medical ICU experience. Even those familiar with cardiac and surgical ICUs were not necessarily prepared to deal with COVID-19 patients, who often suffered from a wide range of complications and had complex ventilation requirements.

Dr. Yip and a multidisciplinary working group of critical care experts responded by developing a pyramid-shaped staffing model. At the very top stood ICU physicians with complex ventilator management skills who supervised from 20 to 50 patients. Just beneath



2020 PHOTO BY JENNIFER O'ROURKE

JÖRG MEYER



Roy Gulick and Magdalena Sobieszczyk

them were ICU leads—physicians who did not normally work in the ICU but were considered critical-care capable (surgeons, pulmonologists, anesthesiologists) and who could round on patients with the support of an intensivist. The “first call” or front-line roles were occupied by residents, nurse practitioners, and physician assistants from many different specialties.

Despite the varying degrees of critical care expertise among team members, the model succeeded in part because everyone focused on a single disease. Rather than having to train an entire cohort of full-fledged intensivists, says Dr. Yip, everybody in the pyramid took on roles as COVID ICU specialists.

In addition, Dr. Yip and her colleagues created specialized teams that could bring critical-care skills wherever they were needed. Airway teams of attending anesthesiologists performed all intubations. Procedure teams of surgical specialists and interventional radiologists were available to perform central line and chest tube insertions. And physical and occupational therapists were trained by medical ICU staff to prone patients with acute respiratory distress syndrome.

They also built a new dedicated palliative care unit for patients whose families had decided to withdraw

life support or forgo aggressive care. The unit offered a peaceful environment for patients and grief support for their families while simultaneously freeing up space in the ICU for incoming patients.

TRIALS AND GUIDELINES

While Dr. Yip and her fellow intensivists were reinventing how critical care was delivered, colleagues in the division of infectious diseases were mounting their own pandemic response.

Much of their energy went toward two intersecting initiatives: one focused on conducting clinical trials to determine the most promising treatments, the other devoted to developing clinical guidelines for physicians in the emergency department and the ICU.

Both initiatives were complicated by the blizzard of information that accompanied the pandemic. This included not only peer-reviewed studies on potential therapies that were published at breakneck speed and sometimes later retracted, but also preprints, press releases, and even tweets about treatments

The clinical trials system was aligned between Columbia and Cornell, and the speed with which the trials were implemented was unprecedented. “The important thing was that none of the steps were skipped,” says Dr. Sobieszczyk.

ranging from convalescent plasma to the antimalarial drug hydroxychloroquine.

“There was a lot of noise,” says Dr. Sobieszczyk, “but we tried to be as data-driven as possible and to do no harm.”

Dr. Sobieszczyk and her Columbia colleagues developed a database to collect information on patients’ clinical parameters, the care they received, and their outcomes. These data-collection efforts were harmonized with a similar initiative at Weill Cornell so that both groups of clinicians could learn from each other’s experiences. The goal was to create an internal data set that could inform the development of evidence-based clinical protocols for physicians on the ground: what labs to draw, what treatments to administer, and when. These data also provided the basis for many interdisciplinary publications.

At the same time, Dr. Sobieszczyk, Dr. Gulick, and their teams joined or initiated clinical trials on what appeared to be the most promising therapeutic candidates—a small pool that included remdesivir, hydroxychloroquine, convalescent plasma, and sarilumab, an immunomodulating drug used to treat rheumatoid arthritis. The inpatient trial process was aligned across NYP and between the two institutions under an executive committee chaired by

Protocols and guidelines during the initial surge ensured that clinicians a year later were better equipped to treat COVID-19 than they were when SARS-CoV-2 first emerged. “We have learned an awful lot,” says Dr. Gulick. “And it translates to lower mortality rates.”



1983 VP&S graduate Donald Landry, MD, PhD, chair of medicine at VP&S, and Anthony Hollenberg, MD, Weill Cornell’s chair of medicine, with the participation of Dr. Sobieszczyk and Dr. Gulick.

The speed with which the trials were implemented was unprecedented, with IRB approval from VP&S typically coming through within a week. “The important thing was that none of the steps were skipped,” Dr. Sobieszczyk says. “People just worked day and night.”

As data came in from both internal and external studies, clinical guidelines were modified accordingly: hydroxychloroquine and convalescent plasma, for instance, were eliminated, while remdesivir, which ultimately became the first drug to receive FDA approval as a treatment for COVID-19, survived.

Other treatments were incorporated as warranted by the available evidence. When the British RECOVERY trial for COVID-19 treatments announced in June 2020 that steroids conferred a mortality benefit, “that became the standard of care in about a minute,” says Dr. Gulick, who also co-chairs the NIH’s COVID-19 treatment guidelines. The immunomodulator tocilizumab and the monoclonal antibody cocktails developed by Regeneron and Eli Lilly, meanwhile, were added to the list of potential therapeutics when they received emergency use authorization.

Depending on a patient’s clinical state, the guidelines might recommend that the patient receive one or another drug, or some combination of them, through several different mechanisms. A patient presenting at the emergency department, for example, might be eligible for emergency use of a monoclonal antibody cocktail; if not, the patient



Natalie Yip

JORG MEYER



2020 PHOTOS BY JENNIFER O'ROURKE

might still be able to receive the drug by enrolling in a clinical trial. Alternatively, a patient might be able to gain access to certain treatments under expanded access or “compassionate use” guidelines issued by the FDA.

Managing this complexity was a team effort. The pharmacists in the research pharmacy, who were familiar with both drug development and infectious diseases, played a vital role in weighing the pros and cons of the various treatments. So did specialists such as rheumatologists and oncologists who had prior experience with some of the immunomodulating agents on offer. And the infectious diseases division had all its clinicians on call to consult with the emergency department and ICU physicians as they put the evolving guidelines into practice.

“It was intensely complicated, and it required an all-hands-on deck approach,” says Dr. Sobieszczyk.

It also involved difficult discussions between family members desperate for anything that might help their ailing loved ones and physicians who had to be careful not to overpromise when dealing with experimental drugs.

“We had lots of anguished conversations about what was available and what we could try,” says Dr. Gulick.

LESSONS LEARNED

By the time the second wave arrived in New York City during the fall and winter of 2020, the clinicians of NYP/Columbia and Weill Cornell had significantly more treatment options than they had during the initial surge and a much better understanding of their adversary.

They now knew, for example, that COVID-19 was a multisystem, multistage disease that progressed from a

viral phase to an inflammatory one and that the various drugs now at their disposal worked best either alone or in combination at different points in a patient’s trajectory—knowledge that was reflected in significantly lower mortality rates.

Similarly, while doctors favored intubation over noninvasive ventilation and high-flow nasal cannulae during the first wave due to concerns over aerosolization, they now knew that risk was much lower than they had initially suspected—and that once intubated, patients often stayed that way for weeks. As a result, intubations were less common during the second wave. Coupled with the new therapeutic options, that meant less demand for ICU beds and more need for stepdown or intermediate care beds.

Even when highly effective vaccines became widely available (following successful studies that both Columbia and Weill Cornell participated in) and case counts plunged in the spring of 2021, things did not go entirely back to normal. When the surge ICUs disappeared, for example, Dr. Yip and her colleagues remained vigilant: They have retained their expanded stepdown capacity and continue to train their staff to deliver more acute care should the situation worsen again.

Dr. Sobieszczyk and Dr. Gulick, meanwhile, continue to run clinical trials on new potential treatments: an oral antiviral, a new immunomodulator, cellular therapies to address later stages of inflammation as well as damage to the lungs and other organs.

“We cannot rest on our laurels,” Dr. Sobieszczyk says. “This virus is proven to be more formidable than many people expected.” ❖

A Legacy of Changing Medicine: CYSTIC FIBROSIS

Early Columbia Pioneers
Who Identified, Treated, and
Advocated for CF

By Danny McAlindon

As far back as the 15th century, a European proverb cautioned parents: “Woe to the child who tastes salty from a kiss on the brow, for he is cursed and soon will die.” The taste of salt on a child’s skin was known to herald an unavoidable death preceded by rasping agony. Parents commonly believed their children had been cursed by witches.

Today, we know that this folklore spoke of the genetic disease cystic fibrosis (CF). Before the discovery of CF and ensuing advancement of care, most children with the disease didn’t survive past age 5. Estimates put the number of patients currently living with CF at more than 70,000 worldwide, with thousands of dedicated physicians, researchers, and fundraisers devoted to their cause.

The modern history of CF begins in 1935, in a basement pathology lab at what was then called the Columbia-Presbyterian Medical Center.

A determined pathologist’s curiosity and her ensuing investigation led to a landmark discovery—a revelation that would alter the lives of millions and launch a decades-long quest to turn the tide against a childhood death sentence.

The Trailblazer

For her time and place in history, Dorothy Hansine Andersen was as rare as she was brilliant. When only some 5% of practicing physicians in the United States were women, she held both an MD degree (from Johns Hopkins University) and a Doctor of Medical Science degree (from Columbia). She was equal parts trailblazer and firebrand. A biographical collection of notable American women

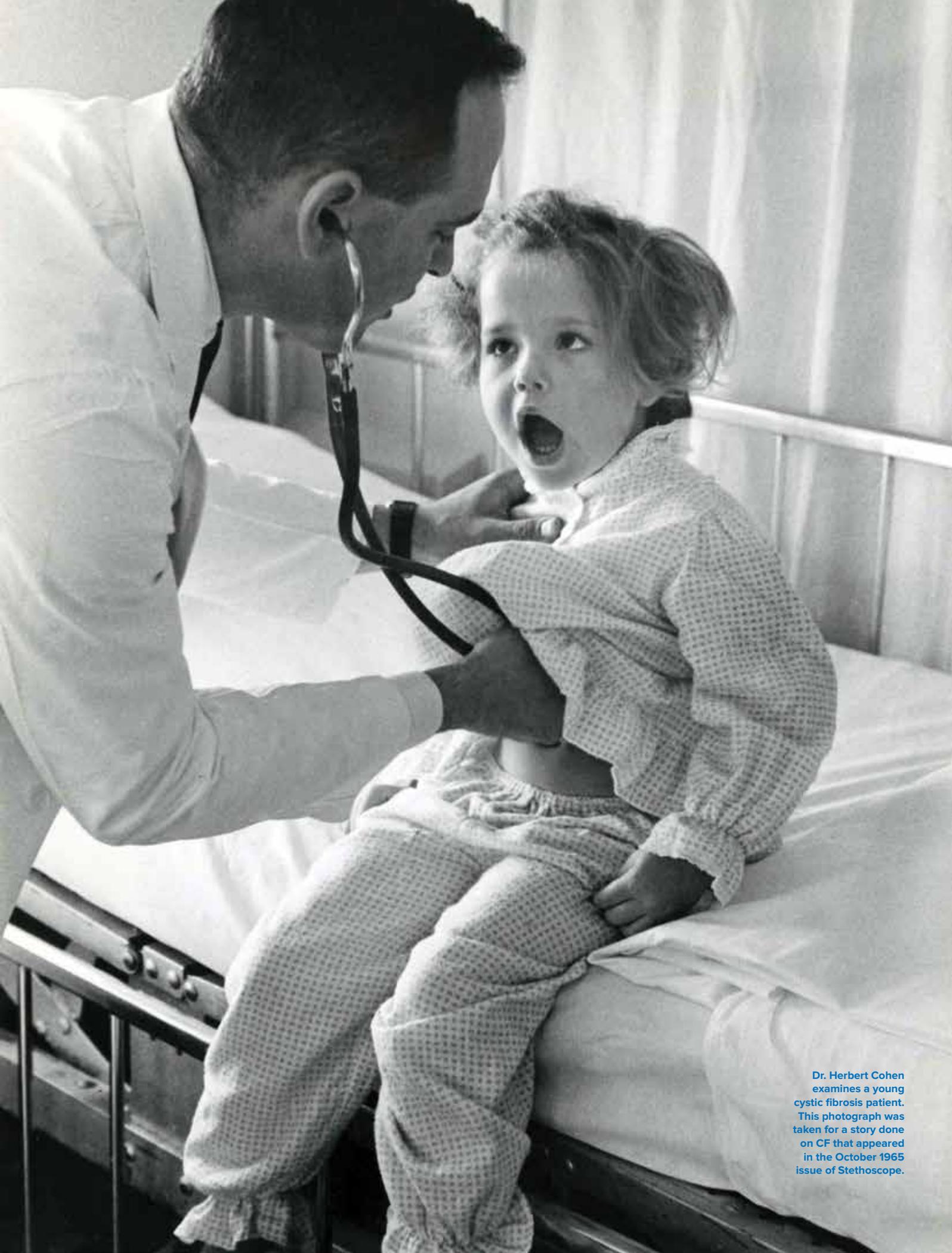
notes that “she fought valiantly for professional equality, spoke out against sex discrimination when colleagues remained silent, and refused to pattern her life according to others’ ideas of what was suitable for a lady.”

After she was rejected for a surgical residency elsewhere because she was a woman, Dr. Andersen earned a position as a pathologist at Babies Hospital (now NewYork-Presbyterian Morgan Stanley Children’s Hospital). It was there she encountered her first case of cystic fibrosis in 1935.

While performing an autopsy of a 3-year-old girl diagnosed with celiac disease, Dr. Andersen found the patient’s lungs in grisly condition and the pancreas riddled with fibrous cysts. Dr. Andersen took to the Columbia University library, and in a broad study of her peers’ research found records of similar oddities in celiac cases. She began her own research, writing the authors of journal articles and requesting pancreatic tissue samples.

In 1938, Dr. Andersen published an article for the *American Journal of Diseases of Children*: “Cystic Fibrosis of the Pancreas and Its Relation to Celiac Disease: A Clinical and Pathological Study.” In it, she described nearly 50 cases of patients diagnosed with celiac disease who showed the hallmark signs of what we now know to be cystic fibrosis.

Dr. Andersen’s publication was well received and began a broader dialogue around the new disease. Concerned parents traveled from across the country to seek her counsel, and her work unexpectedly shifted from pathologist to pediatrician as families poured in to see her at Columbia. Soon she had amassed a catalog



Dr. Herbert Cohen examines a young cystic fibrosis patient. This photograph was taken for a story done on CF that appeared in the October 1965 issue of Stethoscope.



Dorothy Hansine Andersen



Paul di Sant'Agnese

of photos, delivered by hand and by mail from grateful families, featuring the smiling faces of the young patients she had diagnosed. In the years that followed, she would become the founding physician, leading expert, and de facto matriarch of cystic fibrosis.

The Gold Standard

When Paul di Sant'Agnese, MD, joined Dr. Andersen at Babies Hospital in 1943, he began treating CF patients with penicillin after petitioning to use the rationed drug. He stood in line for hours, holding notes on patients to justify his request and was able to get several vials of the drug. Penicillin had profound effects on the children's abilities to fight infection and extended their lives. When the penicillin supply became more plentiful, Drs. Andersen and di Sant'Agnese included it in the CF treatment regimen.

In the late 1940s, Dr. di Sant'Agnese contributed another landmark discovery in the history of CF. When a heat wave tore through New York City in 1948, he found several of his CF patients among children being treated for heatstroke. Their small hands left salty white impressions on water glasses. After some of the same CF patients returned with heatstroke symptoms the next year, Dr. di Sant'Agnese started investigating sweat physiology.

Within a few years, Dr. di Sant'Agnese began using a sweat test on four teens, two with CF and two without. He replicated the experiment in 43 more children before sharing findings with colleagues that children with CF produced sweat with dramatically higher levels of sodium, chloride, and potassium. He suggested that this could be a safe, reliable way for diagnosing the disease in early childhood, and as others built

on his work, physicians embraced the sweat test for being fast, accurate, and painless. Dr. di Sant'Agnese's sweat test remains the gold standard for CF testing today, and the Paul di Sant'Agnese Distinguished Scientific Achievement Award is the highest scientific honor awarded by the Cystic Fibrosis Foundation.

The Fundraiser

Wynne "Didi" Sharples was a 1951 graduate of what is now the Vagelos College of Physicians and Surgeons. As a pediatrician and mother of two children with CF, Dr. Sharples was instrumental in bringing attention and funding to the cause.

The daughter of a wealthy industrialist, Dr. Sharples was well connected and well positioned to make an impact on the disease.

"Breath from Salt" author Bijal P. Trivedi describes Dr. Sharples as "a socialite with the means, connections, visibility, and time to dedicate to the cause" and "a powerful ally in the fight to treat the disease. With two sick children of her own, Sharples understood the urgency of finding the cause and cure."

Dr. Sharples launched the National Cystic Fibrosis Research Foundation in 1955, with chapters in New York, Los Angeles, Philadelphia, Hartford, and Boston. She recruited other parents (many of whom were already leading smaller but similar efforts) and physicians to create one formidable organization that quickly evolved beyond its grassroots origins.

Dr. Andersen and Dr. di Sant'Agnese served on the foundation's medical education committee and helped inform its early CF education efforts, including informational booklets, a quarterly newsletter, and articles in national magazines and newspapers.

By the late 1950s, the foundation had brought considerable attention to the disease, and its efforts were gaining traction. A New York Times article announced the foundation's "War on Cystic Fibrosis" in 1957, describing the disease and the early efforts to test and treat it.

While Dr. Sharples' leadership had been effective, her uncompromising approach created division. To her, research was the foundation's clear No. 1 priority, and she argued that the foundation overspent on administration and publicity. She resigned in 1959 but left the foundation primed to succeed. The original five chapters had grown to 70, fundraising efforts were advancing, and the foundation was well regarded and had close allies in Congress and the NIH.

The foundation Dr. Sharples helped launch went on to become the Cystic Fibrosis Foundation, a leading non-profit for CF and a major contributor to research.

The Future of Cystic Fibrosis

Though their contributions to CF were great, Drs. Andersen, di Sant'Agnese, and Sharples all shared the frustration of being pioneers in the early days of a new disease. But today, 86 years since

John Scott Baird, MD, associate professor of pediatrics and a 1985 VP&S graduate, wrote a biography of Dorothy Andersen, "Dorothy Hansine Andersen: The Life and Times of the Pioneering Physician-Scientist Who Identified Cystic Fibrosis." It will be published in 2022.



In a photo published in 1961, Victor Blitzer, president of the Cystic Fibrosis Association, is shown with Rustin McIntosh, chair of the Department of Pediatrics from 1931 to 1960, as a patient, Karen Saunders, presents a check from the Cystic Fibrosis Association to fund CF research, and Dorothy Andersen and Paul di Sant'Agnese look on.

“The last year and a half has seen probably the biggest advance in CF in decades. We have gone from taking care of patients who coughed all day, who had to be absent from school and work during frequent infections, to people now telling us they feel like their disease is cured.”

Dr. Andersen identified cystic fibrosis during a routine autopsy in the basement of Babies Hospital, the outlook for the disease is dramatically different because of their early efforts.

What was once a childhood death sentence has become a manageable (albeit still incurable) disease, with most patients surviving well into adulthood. Today, the average life expectancy of a cystic fibrosis patient born between 2015 and 2019 is 46 years.

Emily DiMango, MD, serves as director of the Gunnar Esiason Adult Cystic Fibrosis and Lung Program at Columbia University Irving Medical Center. With a grant from the Boomer Esiason Foundation, the program has become the premier site for adult cystic fibrosis care and research in the New York metropolitan area and one of the busiest clinical trial sites in the United States.

The program was involved in the clinical trials that led to the approval of Trikafta, the first triple combination therapy available to treat patients who have at least one mutation in the cystic fibrosis transmembrane conductance regulator (CFTR) gene. The mutation is estimated to occur in 90% of CF cases.

“The last year and a half has seen probably the biggest advance in CF in decades,” says Dr. DiMango. “With CF modulators, we have gone from taking care of patients who coughed all day, who had to be absent from school and work during frequent infections, to people now telling us they feel like their disease is cured.”

While the new therapy does not cure CF, it regulates the patient’s salt imbalance and effectively curbs symptoms. “It’s too soon to know how it will affect survival. But we know that it improves lung function very significantly and slows down the progression of lung disease,” says Dr. DiMango. “We’re very hopeful that with the introduction of this drug, we’re going to see great strides in survival for people with CF.”

Reflecting on the legacy of Dr. Andersen and others, Dr. DiMango and colleagues acknowledge their early contributions. “It’s hard to wrap your head around what it must have been like for Dorothy Andersen,” says Dr. DiMango. “Just being a female physician then was pretty remarkable, not to mention her contributions to CF. We’re all very grateful for her contributions and for what others have done to save so many lives.”

Like Dr. Andersen before her, Dr. DiMango has amassed a collection of photographs featuring smiling children and their families. Where Dr. Andersen’s collection of photos featured children newly diagnosed with CF, Dr. DiMango’s are of another group entirely. They are the children of her CF patients, who have not only survived beyond childhood, but grown, flourished, and started families of their own.

“This entire bulletin board behind me is filled with photos of babies of my CF patients. When I started 20 years ago, it was a big deal for an adult with CF to have a baby. Over the last 20 years, we’ve had around 50 babies born to patients in our practice,” she says.

“I have even more pictures waiting to go up now, a whole pile. I’ve run out of bulletin board, and that gives us a lot of hope.” ❖

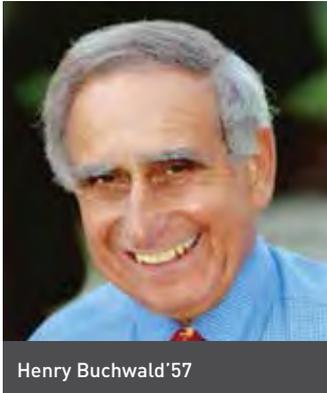
Editor’s Note: For the full story of Drs. Andersen, di Sant’Agnese, Sharples, and countless others who advanced the cause of cystic fibrosis, read “Breath from Salt” by journalist Bijal P. Trivedi.

Alumni News & Notes

By Julia Hickey Mijangos, Alumni Writer,
and Bonita Eaton Enochs, Editor

1957

At this year's virtual alumni reunion, **Henry Buchwald** received a gold medal for outstanding achievements in



Henry Buchwald '57

medical research. A professor of surgery and biomedical engineering at the University of Minnesota, Henry is a renowned surgeon-scientist in obesity management, atherosclerotic coronary heart disease, and implantable artificial internal organs. His landmark trial for the NIH proved the link between lowering cholesterol and reducing heart disease. He holds 20 patents for bioengineering devices, including the first implantable infusion pump used in insulin delivery and continuous chemotherapy delivery.

1962

Bernard Talbot retired in July 2021 after 51 years at the NIH. After receiving his MD from Columbia, he received a PhD from MIT. At NIH, he held several positions including special assistant to the NIH director and deputy director, National Institute of Allergy and Infectious Diseases (and acting director of NIAID in the summer of 1984 before the appointment of Anthony Fauci as director). He was an impor-

tant member of the NIH team overseeing the NIH Guidelines for Recombinant DNA Research, testified at a number of Congressional hearings, was cited in

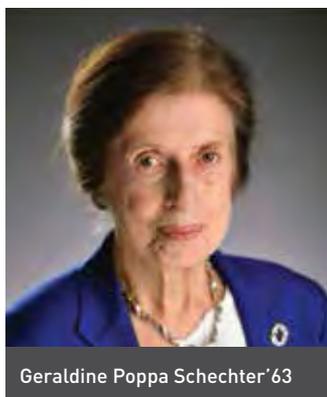


Bernard Talbot '62

front-page articles in the Washington Post and New York Times, represented NIH at many international meetings, and received a number of awards.

1963

At this year's virtual alumni reunion, **Geraldine Poppa Schechter** received the Virginia Kneeland Frantz Award for Distinguished Women in Medicine.



Geraldine Poppa Schechter '63

She is former chief of hematology at the VA Medical Center in Washington, D.C., where she served for more than 40 years, and professor emeritus of

medicine at George Washington University. Geraldine's research has advanced the diagnosis and treatment of chronic lymphoid malignancies and autoimmune hematologic disorders. Virginia Kneeland Frantz '22—for whom the award is named—was the first woman to pursue an internship in surgery at Presbyterian Hospital and the first woman to become president of a major national medical organization, the American Thyroid Society.

1964

Patricia Donahoe received the 2021 Jacobson Innovation Award of the American College of Surgeons during a June 2021 virtual event held in her honor. She is director of pediatric surgical research laboratories and chief emerita of pediatric surgical services at the Massachusetts General Hospital in Boston. The award recognizes her pioneering and ongoing research on mullerian inhibiting substance and on lung development. She is the 27th recipient of the Jacobson Innovation Award, which honors living surgeons who have been innovators of a new development or technique in any field of surgery. Her research has contributed to understanding the complications of disorders of sexual differentiation and understanding of the molecular and

genetic causes of birth defects, particularly congenital diaphragmatic hernia, which adversely affects lung development. Her interest in lung development led her to devise a new technique for the repair of laryngotracheal esophageal clefts, a fatal condition before her technique was developed. The American College of Surgeons recognized her as an Icon in Surgery in 2019.

1965

At this year's virtual alumni reunion, **Suzanne Oparil**, distinguished professor of medicine and professor of cell, developmental and integrative biology at the University of Alabama at Birmingham, gave a talk, "Hypertension in the Time of the COVID-19 Pandemic: New Issues and Enduring Controversies," at the reunion's scientific session.

1970

Peter Budetti has a new book out. Read more in Alumni in Print.

1972

Ken Tomecki became president of the American Academy of Dermatology, the largest dermatology group in the world with more than 20,000 members, in April after a year as president-elect. Ken is a medical dermatologist at Cleveland Clinic, his address for the past four

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Ken Tomecki '72

decades. “Still a New Yorker at heart and still married to Eileen,” he writes. “Life is good, no complaints.”

1974

At this year’s virtual alumni reunion, **Karen Antman** received a gold medal for outstanding achievements in clinical medicine. She is provost of Boston University’s medical campus and has been dean of its medical school since 2005. Based on her group’s translational research, Karen developed now-standard regimens to treat sarcomas and mesotheliomas. She has developed regimens for breast cancer and supportive care of patients receiving chemotherapy. Karen previously served as deputy



Karen Antman '74

director for translational and clinical sciences at the National Cancer Institute. Before that, she was the Wu Professor of Medicine and Pharmacology and

director of the Herbert Irving Comprehensive Cancer Center at VP&S.

1978

Mindy Fullilove, a renowned social psychiatrist and professor of urban policy and health at the New School, gave a talk, “The Social Structure of the COVID Pandemic,” during the alumni reunion’s virtual scientific session.

The American College of Obstetricians and Gynecologists has selected **Andrew Kaunitz** to receive the ACOG Distinguished Service Award in recognition of his contributions to the practice of obstetrics and gynecology and the promotion of women’s health. Andrew is a tenured professor and associate chairman of the Department of Obstetrics & Gynecology at the University of Florida College of Medicine-Jacksonville. He sees patients at UF Southside Women’s Health at Emerson, where he serves as medical director and director of menopause and GYN ultrasound services.

1979

Mary Bassett became New York’s state health commissioner Dec. 1. She was New York City’s top health official from 2014 to 2018.

1980 MD/1978 PhD

Ruth S. Weinstock is the 2021 president for medicine and science for the American Diabetes Association. Ruth is Distinguished Service Professor and chief of endocrinology, diabetes, and metabolism at SUNY Upstate Medical University in Syracuse. She also is medical director of the Clinical Research Unit and Joslin Diabetes Center at Upstate. She has served on the national board of directors and many committees of the American Diabetes Association over more than 25 years. She has been associate editor of *Diabetes*

Care and section editor for endocrinology for *Mayo Clinic Proceedings*, served on the editorial board of *Endocrinology*, and been on national committees for the Department of Veterans Affairs and other national, regional, and local committees and task forces related to diabetes research and to improving diabetes care.

1983

Leon “Lee” Jones was appointed dean for medical education and professor of psychiatry at Georgetown University School of Medicine. Lee is a national leader in efforts to advance equity and inclusion at medical schools, with extensive work in developing evidence-based policy, initiatives, and educational programs that focus on medical school admissions, diversity, student support and learning environment, and student financial assistance. He chairs the AAMC Task Force on Redesign of the Medical Student Performance Evaluation and is AAMC’s representative to the Coalition for Physician Accountability. He previously served as associate dean for students at the medical schools of the University of California Davis, University of



Leon “Lee” Jones '83

Arizona, University of Texas at San Antonio, and the University of California, San Francisco. He joined Georgetown from UCSF, where he was health sciences clin-

ical professor of psychiatry and associate dean for students.

1985

Peter Bolo has started his three-year term as president of the VP&S Alumni Association. He is medical director of Atlantic Behavioral Health and resiliency



Peter Bolo '85

advocate for the Atlantic Health System, both in New Jersey. Peter will focus on physician wellness as well as diversity and inclusion. He assumes the post from outgoing president **Thomas Lo '08**.

1989

David F.M. Brown has been named president of Massachusetts General Hospital and will also serve as executive vice president at Mass General Brigham. David has been chair of emergency medicine at MGH since 2013 and co-founded Mass General Brigham Urgent Care, a regional care network. He is the MGH Trustees Professor of Emergency Medicine at Harvard Medical School and recently served as interim president of Cooley Dickinson Health Care in Northampton.

1991

Daniel Schechter has been medical director of perinatal and early childhood ambulatory care and research on the Child & Adolescent Psychiatry Service at the Lausanne University Hospital in Switzerland since July 2019.

He also is associate professor of psychiatry at the University of Lausanne Faculty of Biology and Medicine but retains his appointment as adjunct associate professor of child & adolescent psychiatry at NYU. A rare feat for American physicians in Switzerland, he received both the Swiss Federal Medical Diploma in November 2019 and full Swiss Federal Board Certification in Child and Adolescent Psychiatry and Psychotherapy in August 2021. More recently, he received a major grant from the Swiss National Science Foundation to look at maternal early adversity, contextual memory, and mother-toddler interactive behavior.

1992

At this year's virtual alumni reunion, **William B. Macaulay** received a gold medal for meri-



William B. Macaulay '92

torious service to VP&S and its alumni association. He is chief of adult reconstructive surgery, the William & Susan Jaffe Professor of Orthopedic Surgery, and medical director of international patient services at NYU Langone Health. Bill was president of the VP&S Alumni Association from 2009 to 2010 and is co-chair for the class of 1992. He is current president of the Association of Bone and Joint Surgeons.

See Alumni in Print to read about the latest book by **Scott**



Scott Small '92

Small, professor of neurology and psychiatry at VP&S and director of Columbia's Alzheimer's Disease Research Center. His lab has been funded by the NIH for more than 20 years, and he has published more than 140 studies about memory function and malfunction. He co-founded a biotechnology company, Retromer Therapeutics, to apply what he has learned about Alzheimer's disease to drug development.

1993

Siva Vithiananthan was named chief of surgery at Cambridge Health Alliance, a Massachusetts community health system serving Cambridge, Somerville, and Boston's metro-north communities. In addition to administrative responsibilities, Siva sees patients at the system's surgical specialties centers and performs surgeries at Cambridge and Everett hospitals. His expertise



Siva Vithiananthan '93

includes minimally invasive surgery for benign and malignant diseases of the gastrointestinal tract, hernia repairs, anti-reflux and hiatal hernia procedures, and surgery of the spleen and adrenal gland. He is also an expert in robotic surgical techniques in general surgery.

1993 MD/PhD

Roy Chuck has been elected as only the second editor-in-chief of the Association for Research in Vision and Ophthalmology's Translational Vision Science &



Roy Chuck '93 MD/PhD

Technology journal. Roy is the Paul Henkind Chair in Ophthalmology and professor of ophthalmology and visual sciences at Albert Einstein College of Medicine.

1995

When **Susan Bukata** was named chair of orthopedic surgery at the University of California San Diego School of Medicine and UC San Diego Health, she became only the fourth woman in the United States to lead a health system's orthopedic surgery department. She joined UCSD from UCLA Health, where she was an orthopedic surgeon, professor, vice chair of orthopedics clinical operations, physician informaticist lead for musculoskeletal health providers, and chief orthopedics liaison to community practice partners. She

credits VP&S for introducing her to the world of osteoporosis care optimization: "My main research focuses on PTH and bone formation. I developed this fascination with bone formation during my endocrine block as an MS 2." She still works with VP&S faculty members John Bilezikian '69, Ethel Siris '71, David Dempster, PhD, and Felicia Cosman, MD.

2001

At the virtual scientific session of this year's alumni reunion, **Mike Smith**, professor of pediatrics in the Division of Pediatric Infectious Diseases at Duke University, gave a talk about the ABC Science Collaborative. The project pairs physician-scientists and public health experts from Duke University and the University of North Carolina with more than 50 school districts across North Carolina to assess the epidemiology and impact of COVID-19 on schools and remote learning.

2009

See Alumni in Print to read about a short fiction collection written by **Jacob M. Appel**. This collection brings his total number of published short stories to over 200, for which he has received multiple awards and award nominations. He also writes novels and currently teaches at the Gotham Writers' Workshop and Mount Sinai medical school.

2015

Sisters **Ezinne Emeruwa** and **Ukachi Emeruwa**, who went to opposite coasts for their residencies, have been reunited as fellows at New York-Presbyterian. They were featured in an article on New York-Presbyterian's Health Matters website. Ezinne is a pediatric cardiology fellow and Uk is a maternal-fetal medicine fellow who specializes in high-risk pregnancies. Though opposites in many ways—Ezinne describes



Ezinne Emeruwa '15
and Ukachi Emeruwa '15

herself as the introvert and Uk the extrovert—the sisters share a mission to care for mothers and babies in underserved communities. Ezinne has a special interest in global health and wants to expand pediatric cardiology and critical care services in Nigeria, where their parents were born and raised. Uk plans to work in underserved communities in the United States and abroad to reduce health disparities and the high maternal death rates in Black women during pregnancy and childbirth. Their older brother, **Obi Emeruwa '13**, is a pulmonary and critical care physician at UCLA Health.

Anna Nordvig has joined the neurology department at Weill Cornell Medicine, where she cares for dementia patients. She also is building an outpatient clinical and translational research program in post-COVID encephalopathy. She hopes her research will reveal the implications of post-COVID-19 encephalopathy for neurodegeneration and clarify whether it is a risk factor, early biomarker, trigger, or a combination of factors.

2020

At this year's virtual alumni reunion, **Mary Raddawi** received a gold medal in recognition of her interest in and devotion to VP&S and its alumni association. She served as Class of 2020

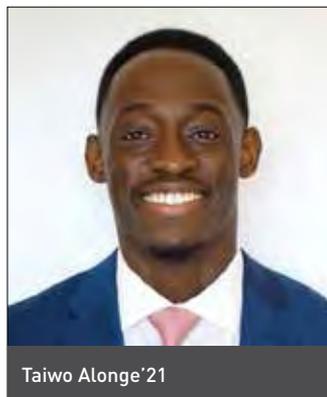


Mary Raddawi '20

vice president and co-chair of outreach. Upon early graduation from VP&S in Spring 2020, Mary supported the front lines of NewYork-Presbyterian by working virtually to monitor recently discharged COVID-19 patients, speaking mostly in Spanish. She is now a resident in internal medicine at Massachusetts General Hospital and co-chair for the Class of 2020.

2021

At this year's virtual alumni reunion, **Taiwo Alonge** received a gold medal in recognition of his interest in and devotion to VP&S and its alumni association. He was 2021 class president and a member of the Anti-Racism Task Force VP&S Subcommittee. A Daniel Noyes Brown Scholar for immersion in primary care, Taiwo graduated with an additional MPH degree from Columbia's Mailman School of Public Health.



Taiwo Alonge '21

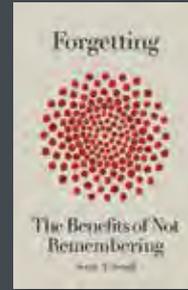
alumni *in print*



Resuscitated

Peter Budetti '70, Amazon.com, 2021

Dr. Budetti's latest novel looks at the case of a premature baby born to a couple who have endured tragedies with earlier pregnancies. When the baby shows no signs of life in the delivery room, the doctor is faced with a split-second decision: Declare the severely premature baby to be stillborn and let nature take its course or do everything possible to save him. The decision the doctor makes has long-term consequences for the child, the family, and the doctor's own career and family.



Forgetting: The Benefits of Not Remembering

Scott Small '92, Crown, 2021

Until recently, memory scientists shared the public's belief that forgetting was a failing. Dr. Small's book describes new research in psychology, neurobiology, medicine, and computer science that suggests that forgetting is good for us and is as important as memory in making our minds work to their fullest. His work as director of Columbia's Alzheimer's Disease Research Center puts him in daily contact with patients who experience pathological forgetting, a contrast to day-to-day forgetting that is normal and beneficial. Typical lapses in memory open up our minds to making better decisions, experiencing joy and relationships, and flourishing artistically.



Winter Honeymoon

Jacob M. Appel '09, Black Lawrence Press, 2020

This book of short fiction is Dr. Appel's 10th collection. Ever since his first collection published with Black Lawrence Press, "Scouting for the Reaper," won the press' annual Hudson Prize, his collections have regularly made Small Press Distribution's bestseller lists. "Jacob M. Appel's stories are more than just slices of life; they contain entire worlds," writes a fellow author in praising the book. This collection has nine stories that begin with the title story, "Winter Honeymoon."

send books (published within the past two years) to:

Bonita Eaton Enochs, Editor
Columbia Medicine
Vagelos College of Physicians & Surgeons
via email: columbiamedicine@columbia.edu



Ernest April

FACULTY

Kenneth Z. Altshuler, MD, former faculty member in psychiatry, died Jan 6, 2021.

Ernest April, PhD, retired associate professor of anatomy, died June 6, 2021. Read more in Alumni In Memoriam (Class of 1969 PhD).

Joseph A. Buda, MD, clinical professor emeritus of surgery, died June 3, 2021.



Michel Ferin

Niki Erlenmeyer-Kimling, PhD, retired professor of clinical psychiatry (in genetics & development), died Feb. 16, 2021.

Michel J. Ferin, MD, retired faculty member in obstetrics & gynecology and physiology & cellular biophysics, died July 16, 2021.

Jay Meltzer, MD, clinical professor emeritus of medicine, died July 3, 2021. Read more in Alumni In Memoriam (Class of 1953).



Clayton Natta

Clayton Natta, MD, retired associate professor of clinical medicine at Harlem Hospital Center, died Feb. 10, 2021.

Taube Rothman, PhD, professor emeritus of clinical pathology (in anatomy & cell biology and in the Center for Neurobiology and Behavior), died Dec. 11, 2020.



Taube Rothman

ALUMNI 1947

James R. Trimble, a pioneering dermatologic surgeon known as “Papa Jim” by family and friends, died Aug. 12, 2021. He was 98. At Columbia, Dr. Trimble met a nursing student, Margaret Ann Bell, and they married in 1947 during his internship in Portland, Oregon. He returned to Columbia to study dermatology



James R. Trimble '47

and begin his PhD in mycology. He served in the Army Medical Corps at the Army Chemical Center in Washington, D.C., and the Rocky Mountain Arsenal in Colorado during the Korean War. He later taught dermatology at Duke University before moving to Jacksonville, Florida, in 1952. There he established a private practice and served as chief of dermatology at the Methodist Hospital. He taught surgical dermatology at conferences for the American Academy of Dermatology and contributed to two medical textbooks on the subject. He was a founding member of the American Society for Dermatologic Surgery. His son, Jay, joined his practice in 1982. Dr. Trimble enjoyed running, sailing, boating, and swimming at Jacksonville Beach. He is survived by three children, eight grandchildren, and 13 great-grandchildren.

1949

John Severinghaus, a professor emeritus of anesthesiology at UCSF whose inventions transformed medical practice worldwide, died June 2, 2021. He was 99. During World War II, Dr. Severinghaus contributed to the development of radar at MIT's Radiation Lab. He served six months with wife Elinor as a medical missionary in Navajo settlements of the Southwest. At the NIH, he invented the first



John Severinghaus '49

electrode to measure carbon dioxide in the blood, followed by the first blood gas analyzer. His prototype is in the Smithsonian Institution. In 1958 he joined UCSF, where his research included the effects of high altitude on blood gases, with fieldwork in the Andes. Curiosity sometimes led him to act as his own test subject. His research in pulse oximetry would contribute to the accurate measurement of oxygen saturation levels in COVID patients. The American Society of Anesthesiologists created a lecture series in his name. In Marin, California, he joined Physicians Against Nuclear War, campaigned for single-payer health insurance, and was an active member of the Unitarian Universalist Congregation for 50 years. Preceded in death by his wife, he is survived by four children and two grandchildren.

1951

Mary King, a specialist in GYN surgical pathology, died Feb. 20, 2021. She was 94. After her medical internship, she served as a postdoctoral fellow in biochemistry at the University of Chicago. Soon after, she and her husband, Donald King, pursued fellowships at the University of Copenhagen in Denmark. She spent five years in the pharmacology and biochemistry department at Yale University,

followed by a tenure as associate clinical professor of pathology at the University of Colorado. She completely immersed herself in outdoor life, including rock hunting, camping, and studying wildflowers. She loved literature. Dr. King later completed a residency in surgical pathology and worked at Rush Medical Center and the University of Illinois. She retired in 1990 in Riverdale, New York. Three children and six grandchildren survive her.

Samuel H. Madell, a World War II veteran and radiologist who pioneered ultrasound technology and excelled in teaching, died



Samuel H. Madell '51

June 2, 2021. He was 96. Dr. Madell was an influential force in the Medical Society of the State of New York, the American Medical Association, and the New York Roentgen Society, of which he was a past president. He dedicated his later years to helping doctors navigate an increasingly litigious environment, serving on the Medical Liability Mutual Insurance Company board. He was a voracious reader with penchants for meaningful conversation, golf, and the arts. He is survived by his wife, Grace, a sister, five sons, and numerous grandchildren.

William "Bill" Revercomb Jr., an internist who practiced in Charleston, West Virginia, for



William "Bill" Revercomb Jr. '51

41 years, died Feb. 21, 2020. He was 92. He completed his residency in internal medicine at the Case Western Reserve University School of Medicine in Cleveland and served in the U.S. Air Force before completing a fellowship at Parkland Memorial Hospital in Dallas. He trained countless medical students and residents at the West Virginia University School of Medicine's Charleston Division. He also served on the West Virginia Occupational Pneumoconiosis Board for many years and was a longtime member of the Rotary Club of Charleston. He was a quiet, contemplative man who loved gardening, playing bridge, and tennis. He is survived by two sons, a daughter, and three grandsons.

1952

Jack G. Shiller, a pediatrician once named a "Champion of Immunization" by the governor of Connecticut, died Jan. 13, 2021. He was 92. After training at Bellevue Hospital and Babies Hospital, he established a private practice in Westport, Connecticut. In 1973, he formed Willows Pediatric Group with Dr. Albert Beasley. Dr. Shiller started the neonatal intensive care unit at Norwalk Hospital and later served as interim chief of pediatrics while teaching at Babies Hospital. In 1977, he helped form the Westport-Weston Health District—the

first of 20 such districts in the state—and served as its director of public health. He received the Connecticut Veterans Wartime Service Medal for his service in the U.S. Air Force as captain of the 47th tactical hospital stationed at Sculthorpe, England. He was an advocate of equal representation, disease prevention, and education. He was proud of his publication, "Childhood Illness and Childhood Injury: A Commonsense Approach," which allowed new parents to recognize and treat common childhood ailments at home. He is survived by a brother, three children, and six grandchildren.

1953

Julie Schoepf Crocker, a Harvard anesthesiologist and the second female president of the New England Society of Anesthesiology, died March 2, 2020. She was 92. She earned her master's degree in zoology at Columbia before beginning medical school. Her anesthesiology residency at Massachusetts General Hospital was interrupted by the birth of her first son, but she completed training at Peter Bent Brigham Hospital. She found a position in the VA Hospital in West Roxbury, Massachusetts, that allowed her to be in the operating room by 7 a.m. and home to meet her children after school. In 1962, she joined the



Julie Schoepf Crocker '53

Lahey Clinic. She joined the Boston Hospital for Women's perinatal anesthesia department and taught at Harvard Medical School a decade later. Her writings focused on headaches associated with spinal anesthesia, wakefulness during anesthesia, and optimal techniques for epidural anesthesia. In 1980, Dr. Crocker and her husband, Augustus Crocker, a cardiologist, gave up their Boston-based medical practices and relocated to Dublin, New Hampshire. In retirement, she volunteered with several garden clubs and assisted in water quality monitoring and erosion prevention at Dublin Lake. She is survived by three sons, six grandchildren, and three great-grandchildren.

Edwin "Ed" Maynard, a primary care physician at Massachusetts General Hospital for more than 50 years, died March 19, 2021. He was 94. At age 18 he volunteered with the American Field Service and drove an ambulance in the European theater. He was one of the first of the Allies to enter the concentration camp Bergen-Belsen. He met his wife, Lisa Simonds, during medical school, while they were both summer volunteers on a medical missionary ship in Labrador, Canada. Dr. Maynard taught medical ethics at Harvard Medical School into his late 80s. He was presi-



Edwin "Ed" Maynard '53

dent of the American College of Physicians from 1989 to 1990. In 1969, Dr. Maynard moved his family to Kampala, Uganda, where he worked in the new residency program at the Makerere University School of Medicine. He loved his church, the Church of the Redeemer, and found great joy in good meals, hiking, skiing, and sailing. He is survived by four children, 10 grandchildren, and a great-grandson.

Jay Meltzer, longtime Department of Medicine faculty member at VP&S and leader in treating hypertension and kidney



Jay Meltzer '53

disease, died July 3, 2021. He was 93. Born in New York City, Dr. Meltzer completed his internship and residency at Columbia, becoming chief resident before joining the faculty. He attended Columbia's nephritis-hypertension clinic, the first clinic of its kind in the United States. He also was a leader in classifying kidney diseases produced by lupus erythematosus in a collaboration made possible by using the then-nascent technique of percutaneous kidney biopsy. He led Columbia's specialized division to treat hypertension and kidney disease and introduced renal dialysis at Columbia. He was known in the New York City medical community as a master clinician. He displayed his

landscape paintings at his office on Park Avenue. The university established the Jay I. Meltzer MD Chair in Nephrology & Hypertension in his honor. He is survived by his wife, Pamela, three children, and a stepson.

1954

William Muir, chair of surgery at Burlington County Memorial Hospital in New Jersey for 25 years, died May 24, 2021. He was 92. He completed his internship and residency at the University of Pennsylvania. In 1970, he began a preceptorship program in surgery that evolved into a



William Muir '54

four-year program in general surgery affiliated with the University of Pennsylvania. Dr. Muir was a Fellow of the American College of Surgeons and served as the New Jersey chapter president. Following his retirement in 1994, he served as a surgeon for three years with the Indian Health Service in Shiprock, New Mexico. Moved by the death of a friend who could not get timely medical care in the Long Beach Island area, Dr. Muir and other hospital leaders helped to develop the Southern Ocean County Hospital. He loved sailing, celestial navigation, music, fine arts, and studying world civilizations. He is survived by three sons, three daughters, 11 grandchildren, and five great-grandchildren.

John A. Ramsdell, a surgeon and the fourth generation of his family to practice medicine in White Plains, New York, died Feb. 9, 2021. He was 93. After medical school, Dr. Ramsdell served his internship at Bellevue Hospital-First Division (Columbia) in New York City and completed a fellowship at the Mayo Clinic in Rochester, Minnesota. He also earned an MS in surgery from the University of Minnesota. He was an attending surgeon at White Plains Hospital and the former St. Agnes Hospital in White Plains and consulted at New York Hospital,



John A. Ramsdell '54

Westchester Division, and Burke Rehabilitation Hospital. Dr. Ramsdell was president of the Medical Society of Westchester County and of the Westchester County Board of Health. He also was a member of the American Medical Association, chair of YMCA Central and Northern Westchester, and president of the Rotary Club of White Plains, Sons of the Revolution's New York chapter, and White Plains Masonic Lodge 473. He attended St. Bartholomew's Episcopal Church of White Plains. He is survived by his wife, Barbara, three children, seven grandchildren, and two great-grandchildren. His father, Edwin G. Ramsdell, graduated from what is now VP&S in 1908.

Harold "Hal" Stocker, an internist at Kaiser Hospital in Oakland, California, for 28 years, died June 10, 2021. He was 94. The son of a Presbyterian minister, Dr. Stocker enlisted in the U.S. Navy during World War II. After medical school, he trained in pathology at the Hospital of Pennsylvania and completed a residency in internal medicine at Stanford. He donated one month of each year to serve on the international hospital ship "Hope." He was active in local politics as the Yuba County supervisor (Fifth District) for 20 years. His main objective was to preserve the natural beauty of the foothills by discouraging large subdivisions and excessive housing. His favorite pastimes were tennis, gardening, growing fruit trees, and the 49ers. He is survived by his wife, Leah.

Earl "Doc" Wheaton, an internist-rheumatologist in private practice for 30 years in Ridgewood, New Jersey, died March 23, 2021. He was 92. Lucid throughout his short struggle with cancer, Dr. Wheaton spent his last days at his beloved Valley Hospital, where he had been a member of the leadership team for more than a decade. He was a member of the Valley Hospital board and a recipient of the Distinguished Physician Service Award. After medical school, he became chief resident at Columbia and served in the U.S. Army as a captain. Remembered as a gentle and gracious leader, he volunteered for Valley Hospice and the Bergen Volunteer Medical Initiative, which provides free health care to the working uninsured in Bergen County. His wife, Jeanne, five children, 11 grandchildren, three great-grandchildren, and four stepsons survive him.

1955

Alexander Kessler, a co-founder of the Human Reproductive Programme (HRP) at the World Health Organization, died Dec. 30, 2020. He was 89. The HRP is the main instrument within the United Nations system for research in human reproduction and promotes and protects human rights to sexual and reproductive health. Born in Austria, Dr. Kessler and his family arrived in the United States in 1941. After earning his MD, he earned a PhD from Rockefeller University and served in the U.S. Army before being



Alexander Kessler '55

recruited to WHO. In 1966, he led its first Human Reproduction Unit with a mandate to advise member states on family planning. He led a feasibility study in human reproduction that in 1972 became the new Expanded Programme of Research, Development and Research Training in Human Reproduction. He helped build a network of regional and clinical research and training centers in low-resource settings, activities that continue today. He was the primary director of HRP through 1983. He thrived on vigorous debate; loved music, theater, and poetry; and was an avid hiker.

Robert "Bob" Frank Roth, a plastic surgeon dedicated to

international medical service, died May 14, 2021, at 91. At 16, he recovered from a severe illness and made a vow within his Christian faith to become a doctor. He served as a medical/surgical missionary in post-war South Korea and returned to a residency at UNC Medical Center. Dr. Roth served at Lewis-Gale Hospital, Bradley Free Clinic, and three other local hospitals in Roanoke and Salem, Virginia. In 1964, he helped establish Roanoke and Wonju, South Korea, as "sister cities." The partnership evolved into Roanoke Valley Sister Cities with the addition of Kisumu, Kenya; Pskov, Russia; Florianopolis, Brazil; Opole, Poland; Lijang, China; and St. Lo, France. Upon retirement in 1995, Dr. Roth created "Peace Pagodas on the Lake" at his home, used as a private retreat center for sister-city guests and others. He was preceded in death by his first wife, Paulene Hadaway, and is survived by his second wife, Dorothy H. Roth, three children, three grandchildren, and six great-grandchildren. He donated his body to the Virginia Anatomical Society.

1956

Brig. Gen. **Edward Burka** died Jan. 9, 2021. He was 90. The child of two Russian immigrants who fled the pogroms, he was passionately patriotic and earned his medical degree while serving as a first lieutenant in the Army Reserve. He later managed the sickle cell anemia clinic and blood bank at Philadelphia's Thomas Jefferson University Hospital. As a doctor in the medical corps, he voluntarily entered the Airborne-Special Forces, where he became a master parachutist. In 1958 and 1959, he was a jumpmaster at Wiesbaden Air Force Base in Germany. From 1979 to 1983, he was the U.S. Army's Deputy

to the Surgeon General for Mobilization, responsible for planning logistics for the evacuation of U.S. cities in the event of a nuclear or biological disaster. He was also an avid collector of and expert on U.S. medical military insignia, uniforms, and instruments. Three children and four grandchildren survive him.

Ralph Richter, a neurologist and Alzheimer's disease expert who served as assistant dean of Columbia's medical school under H. Houston Merritt, died May 28, 2021. He was 90. He attended Union Theological Seminary



Ralph Richter '56

before medical school and completed a residency at the Neurological Institute of New York. A person of deep faith, Dr. Richter felt it essential to help underserved and at-risk patients. He asked Dr. Merritt to assign him to work part time at Harlem Hospital, where he established its neurology department and a federally funded regional stroke program. In 1975, he left Columbia to help establish the medical school at Oral Roberts University in Tulsa, Oklahoma, and he rose to clinical professor in neurology and psychiatry at the University of Oklahoma College of Medicine. Dr. Richter led research into advanced therapeutic drugs for Alzheimer's through his company, Tulsa Clinical Research LLC. He practiced

neurology in Tulsa until 2019, when he retired to pursue his love of reading history and poetry. He is survived by his wife, Julia Craft Richter, three children, two stepchildren, and two grandchildren.

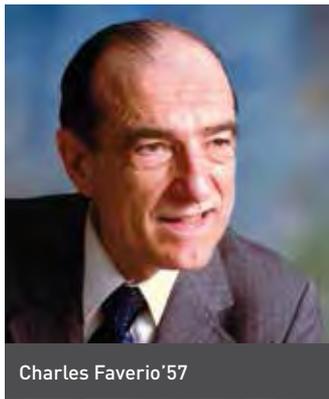
1957

Edward Danielski Jr., a radiologist at Bassett Hospital and later director of Fox Hospital's radiology department, died Feb. 14, 2021. He was 90. Dr. Danielski completed his internship and residency at Bellevue Hospital. He later served in the Army as a captain and radiologist at the 57th Field Hospital in Toul, France. He was board certified in radiology, radiation therapy, and nuclear medicine. He and his wife moved to Cooperstown, where he became an associate radiologist at Bassett Hospital. He later established his own radiology department at Fox Hospital in Oneonta. He helped introduce the first arteriograms to the Dominican Republic and the first myelogram to Tunisia under the auspices of CARE-MEDICO. Dr. Danielski was a gifted amateur piano and harpsichord player who also loved skiing, sailing, and gardening. He is survived by wife Anne Marie's two children and five grandchildren.

Norman Ertel, an endocrinologist, died July 18, 2021. He was 88. He completed a residency at Albert Einstein College of Medicine and a fellowship in steroid biochemistry and endocrinology at Cornell University. As a captain in the U.S. Air Force, he served at Andrews Air Force Base outside Washington, D.C. He served as chief of medicine at the VA Hospital. Passionate about teaching, Dr. Ertel also taught at the University of Medicine and Dentistry of New Jersey. He was married to Barbara "Bobbi" Schuster for 52

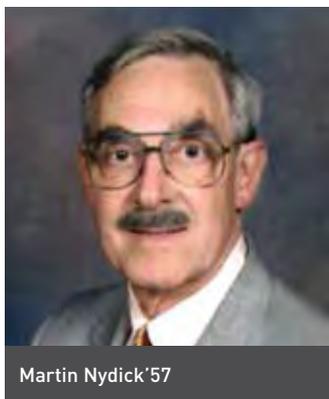
years before her death in 2019. He loved classical music, traveling, research, reading newspapers, and spending time with his family. Three children and four grandchildren survive him.

Charles Faverio of Hopewell Junction, New York, died March 22, 2020, at the age of 87.



Charles Faverio '57

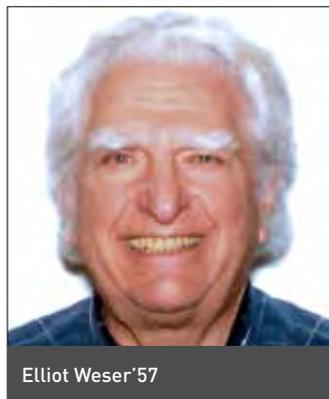
Martin Nydick, a clinical endocrinologist with a sub-specialty in bone metabolism, died June 28, 2021. He was 88. Early in his career, he collaborated on research projects in adolescent endocrinology. After serving as a senior assistant surgeon in the U.S. Public Health Service, he spent two years at the University of Washington. He and his brother, Dr. Irwin Nydick, had a private practice affiliated with New York-Presbyterian/Weill Cornell and the Hospital for Special



Martin Nydick '57

Surgery for more than 50 years. He taught medicine at Cornell and retired in 2015 but continued mentoring as a doctor emeritus. Dr. Nydick was an avid birder and naturalist who also loved playing tennis and rooted for the New York Mets. He delighted in history, classical music, reading biographies, and conquering the New York Times crossword puzzles. He is survived by three children, four grandchildren, and his brother. He is also survived by his partner of 18 years, Constance Margolin, and her children.

Elliot Weser, a gastroenterologist and founding faculty member of the University of Texas Health Science Center at San Antonio, died March 26, 2021. He was 89. He trained in gastroenterology at Cornell, University of Washington in Seattle, and Albert Einstein College of Medicine and spent a year at the NIH. In 1967 he joined the division of gastroenterology as chief at the new medical school in San Antonio.



Elliot Weser '57

He was also chief of medicine at the Audie Murphy VA Hospital. Following retirement in 2006, Dr. Weser served as president of the boards of Golden Manor Jewish Home for the Aged, the Carver Cultural Center, and Temple Chai, a Reform Jewish congregation he helped found. He cycled with the San Antonio

Wheelmen. He was twice elected to the Alamo Heights City Council. As a pilot, he logged more than 4,000 hours flying through Mexico, Canada, and the United States in his 1978 Mooney. His wife, Marcia Goren Weser, his son, two stepdaughters, and three grandchildren survive him.

1958

Barry Galton, a cardiologist and internist in Wayne, New Jersey, from 1964 to 2011, died May 25, 2021. He was 89. He enjoyed travel, the New York Philharmonic, dinners with friends, and time with family. He was on the board of the YM-YWHA in Wayne and a volunteer physician at the Bergen Volunteer Medical Initiative in Hackensack. He is survived by his wife, Ann, two daughters, four grandchildren, and a brother.

Bert S. Horwitz, an orthopedic surgeon remembered for his gentle and caring nature, died March 29, 2020. He was 87. His wife, Felice,



Bert S. Horwitz '58

three children, eight grandchildren, two stepchildren, and three stepgrandchildren survive him.

1959

Augustus "Gus" Middleton, a pathologist who joined the Jackson Madison County General Hospital in 1963, died Feb. 7, 2021. He was 90. He

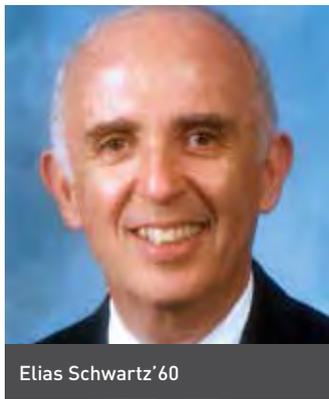
spent several years on the board of the National Accrediting Agency for Clinical Laboratory Science. He devoted his career to bringing innovation and state-of-the-art practices to the medical world and west Tennessee. Passionate about family above all else, Dr. Middleton was determined to teach all his children and grandchildren how to water ski and snow ski. He was an adventurer who climbed Mount Kilimanjaro at age 65. While stationed with the U.S. Coast Guard in Charleston, South Carolina, he met his first wife, Ann Huxford, and they were married for 55 years. He helped found the Episcopal Day School in Jackson, Tennessee. He was also a loyal member and volunteer at St. Luke's Episcopal Church, where he taught Sunday School and was a senior warden. In retirement, he volunteered his medical services for several missions in Kenya, Nepal, Madagascar, and St. Lucia. He is survived by his second wife, Beverlye, two daughters, three sons, and eight grandchildren.

1960

Charles Leach Jr., a cardiologist who co-founded Connecticut's first cardiac rehabilitation program, died Aug. 10, 2021. He was 86. After medical school, Dr. Leach met his future wife, Joan (Gross), at Bellevue Hospital. He served as a captain in the Army Medical Corps. He later became director of cardiology at New Britain General Hospital and learned Polish to better connect with his patients. He briefly returned to private practice and taught at the University of Connecticut Medical School. He loved to bring his first-year students to the New Britain Museum, where he encouraged them to find the connections among medicine, music, and art. Upon retiring in 2000, he volunteered with local and state historical, environmen-

tal, and arts organizations. He dressed as a Colonial doctor at museum events for the Stanley Whitman House. In 2007, he was named the Farmington Land Trust Alliance's Volunteer of the Year for his advocacy of open space protection. His wife, Joan, a sister, four children, and seven grandchildren survive him.

Elias Schwartz, a pediatric hematologist and former physician-in-chief of Children's Hospital of Philadelphia (CHOP), died July 17, 2021. He was 85. After medical school, he interned at Montefiore Hospital in the Bronx and completed a pediatric residency at St. Christopher's Hospital for Children in Philadelphia. He served in the U.S. Air Force at Offutt Air Force Base in Omaha, Nebraska, caring for the children of military



Elias Schwartz '60

personnel. After he trained in hematology at Boston Children's Hospital, he became a professor of hematology and was on the pediatric staff of Thomas Jefferson University from 1967 to 1972. He headed the hematology division of CHOP before serving as its physician-in-chief. Some sickle cell anemia patients remained in his care for 40 years. He later joined Thomas Jefferson University's duPont Hospital for Children in Wilmington. Dr. Schwartz edited the

textbook "Hemoglobinopathies in Children." Having studied classical piano as a child, he taught courses on jazz and film at Temple University's Osher Lifelong Learning Institute. He is survived by his wife, Esta Rosenberg, sons, and grandchildren.

1961

Joseph "Joe" Clevenger Jr., an OB-GYN, died Oct. 1, 2019, from Alzheimer's disease. He was 84. He completed a residency in Chicago, spent two years in the U.S. Air Force in Missouri, and in 1967 began his OB-GYN practice with Kaiser Permanente in Santa Clara, California. He served as chief and assistant chief during a time of dynamic patient growth. Over the next 29 years, he was beloved by patients and colleagues for his likable, down-to-earth style. He loved the outdoors, traveling and learning, and his favorite team, the 49ers. After retirement, he stayed active hiking with retired former colleagues and meeting with the Saratoga Men's Club. He is survived by his wife, Martha, and three children.

Arthur Meyerson, a psychiatrist and lifelong New Yorker, died Jan. 27, 2021. He was 84. Dr. Meyerson championed the rights of the chronically mentally ill and supported community mental health programming. He served as a hospital administrator and professor of medicine at several teaching hospitals, including Mount Sinai, New York University, the University of Medicine and Dentistry of New Jersey, and the Hahnemann University School of Medicine in Philadelphia, where he served as chair of psychiatry and neurology. He was a Distinguished Life Fellow of the American Psychiatric Association. Following the September 2001 World Trade Center attacks, he was the clinical direc-

tor for disaster psychiatry outreach at ground zero, providing free therapy to first responders, victims, and their families. After retirement, he devoted himself to travel, summering on Shelter Island, reading, writing poetry, and singing with his glee club. He is survived by his wife, Carol A. Bernstein, MD, three children, and two grandsons.

William Reichel, a family medicine practitioner and a founder of geriatric medicine, died May 14, 2021. He was 83. His early training took place at the Medical Center Hospital of Vermont, Mary Fletcher Hospital; Stanford University, as chief resident in internal medicine; and the Unit for Research in Aging at the Albert Einstein College of Medicine. He was a lieutenant commander and surgeon for the



William Reichel '61

U.S. Public Health Service and an internist and research investigator for the Gerontology Research Center at the NIH. In 1972, he was recruited to establish a family medicine residency at Franklin Square Medical Center, where he chaired operations until 1988. As a board member of the American Geriatrics Society, he led a delegation to the International Congress of Gerontology in the USSR to discuss premature aging. After a deadly illness outbreak in a Baltimore nursing home in

1973, he testified before the Senate Special Committee on Aging. This resulted in requirements that skilled nursing facilities have a medical director. He published "Care of the Elderly: Clinical Aspects of Aging" and edited the text for "The Geriatric Patient." He was an expert on progeria, premature aging on a rapidly accelerated scale. Dr. Reichel later directed the Department of Geriatrics and Aging Services at the Boston Evening Medical Center and taught at Tufts University and Brown University medical schools. He enjoyed reading and spending time with his family. He is survived by his wife of 61 years, Helen, a microbiologist, two children, and five grandchildren.

1962

William "Bill" Duncan III, a vascular surgeon, died Dec. 3, 2019. He was 83. He completed his internship and residency at Harvard and served as lieutenant at sea in the U.S. Navy Medical Corps before settling in Portland in 1971 to begin his practice. He was elected president of the Portland Surgical Society, the Portland Vascular Society, and the professional review organization HealthInsight (formerly Acumentra Health). He taught at Oregon Health Sciences University. Dr. Duncan supported the arts on the boards of the Oregon Symphony and Oregon Opera. He enjoyed tennis and squash, climbed Mount St. Helens both before and after it erupted, and finished the Boston Marathon twice (and completed seven other marathons). In 1990, he bought a cabin in the mountains of central Oregon and loved riding horses. Upon retiring from medicine at age 68, he began racing vintage cars at the Portland International Raceway. He is survived by his partner, Ann, her daughter, two children, and a sister.

Mary Jeanne Kreek, a pioneer in studies of addiction who was a senior attending physician at Rockefeller University, died March 27, 2021. She was 84. Struck with polio at age 11, she danced ballet to overcome the physical consequences and joined the Washington Ballet Company as a teenager. She trained in inter-



Mary Jeanne Kreek '62

nal medicine and gastroenterology at Cornell. During a research fellowship at Rockefeller University, she worked with Vincent Dole and Marie Nyswander to develop the use of methadone for opiate addiction. Dr. Kreek created the first laboratory techniques for measuring methadone and similar drugs in blood and tissues, which helped lead to the FDA's approval of methadone for opiate addiction. She fought against the stigma of addiction and contended that addictions should be seen not as weaknesses or criminal behaviors, but as brain diseases. She identified many of the genes, biological pathways, and atypical responses to stress that act together to increase the probability of addiction not only to opioids but also to cocaine, alcohol, and marijuana. Dr. Kreek and her husband, Robert Schaefer Sr., a gastroenterologist who died in 2018, were lifelong arts patrons. They loved opera, ballet, travel, and fine dining. She adorned her house with cut flowers and live

orchids. She is survived by two children and four grandchildren.

Barry R. Walker, an internist and expert in pharmaceuticals and biotech, died Sept. 27, 2019. He was 83. He completed an internal medicine internship and a residency at Temple University Hospital and a fellowship in



Barry R. Walker '62

renal-electrolyte diseases at the University of Pennsylvania. He served two years in the U.S. Public Health Service hospital in New Orleans as chief medical officer of the emergency room. Returning to Philadelphia in 1968, Dr. Walker served as director of clinical pharmacology at Smith Kline & French. Later, at Wyeth Pharmaceuticals, he was senior vice president for worldwide clinical research and development. He taught at the University of Pennsylvania School of Medicine and the Leonard Davis Institute of Health Economics of the Wharton School of Business. Following retirement, he consulted for a range of pharmaceutical, biotechnology, medical device, and clinical research companies, startups, and government organizations. He was a diplomat of the American Board of Internal Medicine and co-founder of the American Society of Hypertension. Survivors include his wife, Nancy Lee Weiherer Walker, two children, and four grandchildren.

1963

Arthur "Sandy" Brown II, a general surgeon at Bronson Medical Center and Borgess Hospital in Kalamazoo, Michigan, for nearly 30 years, died Feb. 12, 2021. He was 83. Dr. Brown—nicknamed Sandy as a child because of his sandy brown hair—completed residencies at Minneapolis General Hospital (now Hennepin County Medical Center) and Henry Ford Hospital in Dearborn, Michigan, before practicing in Kalamazoo. He met his wife, Judith Ann Coburn, at age 10, when they were neighbors. They married shortly after their college graduations and were together until she died in 2005. He was an avid Francophile, having spent two years in the U.S. Army stationed in Chinon, France. He loved to sing, play tennis, and attend University of Michigan football games. He is survived by two children, two grandchildren, and a brother.

1964

Peter Salomon, the head of pathology at El Dorado Hospital in Tucson, Arizona, until his retirement, died July 26, 2021. He was 83. Born and raised as a New Yorker, Dr. Salomon completed his residency in pathology at St. Luke's Hospital. He and his young family moved to Tucson in 1972 after a two-year stint at Fort Polk Army base in



Peter Salomon '64

Louisiana. Dr. Salomon was an avid athlete who competed in local Tucson tennis tournaments and won many doubles titles in his younger years. He moved on from tennis to hiking, birding, and fishing. He enjoyed limericks, New York Times crossword puzzles, backgammon, and Trivial Pursuit. He cared deeply about Tucson and supported multiple local charities, primarily in science, the arts and humanities, and underserved communities. His wife, Patricia Carr Morgan, two daughters, a stepdaughter, and a sister survive him.

1965

Nathaniel "Nat" Reichek, a sharp diagnostician and one of the founding fathers of the field of cardiac MRI, died March 10, 2021. He completed his internship and residency at the Bronx Municipal Hospital Center, served as a lieutenant commander in the U.S. Public Health Service at the CDC, and completed a cardiology fellowship at Georgetown University Medical Center. He joined the University of Pennsylvania as junior faculty, where he directed its noninvasive laboratories. In 1992, he moved to Allegheny General Hospital as chief of its cardiology division. A decade later, he joined St. Francis Hospital as director of research and education and taught biomedical engineering at SUNY Stony Brook. Dr. Reichek served in various leadership positions at the Society of Cardiovascular Medical Resonance. His long-term collaboration with Leon Axel at Penn is legendary as they published a series of manuscripts regarding the use of myocardial tagging to characterize intramural function. He was a principal investigator in the Women's Ischemia Syndrome Evaluation study that contributed to understanding chest pain and coronary artery disease in women.

1966

Henry Fieger Jr., a neurosurgeon, died Aug. 9, 2018. He was 78. Originally from Ohio, he spent a summer during college at Glacier National Park as a “singing waiter,” which led to his great love for the West. He completed his medical internship and residency at the University of Colorado. A U.S. Army Reserve member, he was activated to serve in Vietnam as a general surgeon with the Army’s 1st Battalion. He earned the Bronze Star, Air Medal, National Defense Medal, Vietnam Campaign Medal, Vietnam Service Medal, and the rank of captain. After the war, he taught at Denver’s University Hospital and was on staff at St. Joseph, Children’s, Denver General, Presbyterian/St. Luke’s, and Lutheran hospitals. He became chief of neurosurgery at St. Joseph and Children’s hospitals. He was also chair of the surgery department and president of the medical staff at St. Joseph Hospital. In 1989, Dr. Fieger became chief of neurosurgery at the Colorado Permanente Medical Group. He was a founding member of the Colorado Neurosurgical Society and a president of the Rocky Mountain Neurosurgical Society. He was married to Jill Hilton for 34 years of marriage until she died in 2015. They shared a love of poetry, books, and travel.

Edward “Ted” Hard, a longtime emergency room doctor and novelist, died July 16, 2021. He was 81. While completing a surgical residency at Stanford University, he published three short stories in the *Saturday Evening Post*. He directed the emergency department at Sutter Medical Center Santa Rosa for more than two decades and practiced emergency medicine at Petaluma Valley Hospital. Starting in 2018, he

directed emergency services for St. Joseph’s Hospital in Eureka and Redwood Memorial Hospital in Fortuna. He loved photography and wrote “The Hunt for the Blackfoot Lion,” a novel he finished during the pandemic. His other novels include “Oasis” and “SUM VII,” to which Twentieth Century-Fox purchased the film rights. Another novel, “Ishmael,” is being edited for publication. He also wrote articles for the Sonoma County Medical Association. Dr. Hard is survived by his wife, Ellie Galvez-Hard, his sister, five children, and several grandchildren.

1967

Roger Christensen, a gastroenterologist who graduated from medical school alongside his identical twin brother, Thomas



Christensen, died April 6, 2021. He was 79. He completed an internal medicine residency in Seattle at the University of Washington and a fellowship in gastroenterology at the VA Medical Center. He proudly served in the U.S. Air Force from 1969 to 1971, serving with his twin brother in the Philippines at the military hospital at Clark Air Base. Following his military service, he was in private practice in Tulsa, Oklahoma. He later joined the Cooper Clinic in Dallas, Texas, where he practiced

for 15 years until he retired from medicine in 2000. Dr. Christensen was a marathoner, avid swimmer, and reader. His wife, Katy, twin brother, and two sisters survive him.

Ernst “Ernie” Heilbrunn, an anesthesiologist who retired after 36 years of service at Valley Hospital in Ridgewood, New Jersey, died June 23, 2021. He was 86. He was born in Germany but was 4 when his family moved to Washington Heights. He served with the Army National Guard 102B Engineering Battalion 42 Infantry Division. He was a member of the American Society of Anesthesiologists and a charter member of the U.S. Holocaust Memorial Museum. Dr. Heilbrunn appreciated food, wine, museums, Broadway shows, and travel. He is survived by his two daughters, six grandchildren, the mother of his children, Sandra Lewis, and his lifelong friend, Robert Florsheim.

Stanley F. Novak, a pediatrician in Rochester, New York, died Feb. 25, 2021. He was 79. After medical school, he served as a major in the U.S. Air Force at Grand Forks Air Force Base in North Dakota. He completed his residency in pediatrics at the University of Rochester. After many years in private practice, he joined Lifetime Health as pediatric chairman, a position from which he retired in 2007. Dr. Novak saved every card his patients gave him. He loved New York City, particularly its Broadway and off-Broadway theaters. He relished spending time with family and friends on Canandaigua Lake. He is survived by his life partner, Paul Lyons, two children, wife Carol J. Novak, two grandchildren, and a sister.

1969 PhD

Ernest “Ernie” April, retired director of the VP&S clinical anatomy course, died June 6, 2021, at age 81. Dr. April served from 1961 to 1963 as an active duty officer in the U.S. Navy and was discharged from the reserves as a lieutenant in 1971. In his 47 years at Columbia, he trained generations of academic leaders in medicine. The textbook he authored, “Clinical Anatomy,” was the staple text at many academic institutions. His original research, published in *Nature*, demonstrated that striated muscle is best described as a liquid-crystalline structure. He humanized anatomy teaching and charged his students to respect the gifted body both as a teacher and as their first patient. In that spirit, he established the first anatomy memorial service in the mid-1970s to honor donors’ lives and as closure for the students. Dr. April served as a volunteer firefighter in Rockleigh, New Jersey, where he was captain and fire chief from 1987 to 2002. He was a council member for the Borough of Rockleigh, a member of the planning and zoning boards, commissioner of public safety, chair of the Park Commission, and director of the Office of Emergency Management. He was an avid sailor and skier. He is survived by his wife, Lauren Helm’03, a son, and a granddaughter.

1970

Barry Massie, a world-renowned expert in heart failure, died Jan. 8, 2021, of COVID-19 after a long battle with dementia. He was 76. Dr. Massie was chief resident at Bellevue Hospital in New York City and completed his cardiology fellowship at UC San Francisco and the Veterans Affairs Medical Center in San Francisco. In 1977, he became

a professor of cardiology at UCSF. He researched imaging modalities for the diagnosis and characterization of heart failure, the role of arrhythmias and anticoagulation, and novel pharmacologic treatments. He played a leadership role in many NIH-sponsored clinical trials and VA cooperative studies that led to current therapies for heart failure. Before retiring in 2013, he held several positions, including as director of the cardiac care unit and heart failure program at the San Francisco VA Medical Center, chief of cardiology at the San Francisco VA, consultant to the FDA, president of the Heart Failure Association of America, and editor-in-chief of the *Journal of Heart Failure*. He enjoyed travel, adventure, hiking, playing poker, and cheering on the St. Louis Cardinals. He is survived by two daughters, a grandson, and a brother.

Candace Cooper Walworth, a nephrologist who helped establish outpatient dialysis in central Maine, died unexpectedly on Feb. 17, 2021, after complications during surgery. She was 76. At Columbia, she married her classmate, Edward Z. Walworth '70. Their honeymoon was a two-month medical student rotation at a hospital in Taiwan. Both trained at Dartmouth-Hitchcock in Hanover, New Hampshire, and later joined St. Mary's Regional Medical Center and Central Maine Medical Center. She expanded her practice from internal medicine to nephrology and in 1984 opened the Lewiston-Auburn Kidney Center. The practice grew to Auburn, Wilton, and Augusta, Maine. Dr. Walworth was the first woman medical staff president at St. Mary's. She retired from clinical practice in

2010. Devoted to the Lewiston-Auburn community, she was a charter board member of the Public Theatre, participated in a women's book club for nearly 40 years, and supported the Maine Women's Fund. She was a skilled conversationalist, adventurous cook, and enthusiastic gardener, and she loved Volkswagen convertibles. She is survived by her husband, Ted, two daughters, five grandchildren, and a brother.

1970 PhD

Robert "Bob" M. Johnson died June 24, 2021, at the age of 83. He was professor emeritus in the Department of Biochemistry and Molecular Biology at Wayne State University's School of Medicine, where he served on the faculty from 1972 until retirement in 2014. He volunteered for political campaigns, Amnesty International, and the Sierra Club and served on the Ann Arbor City Council from 2001 to 2007. He loved spending time in nature and was instrumental in establishing Ann Arbor's greenbelt and creating the Bluffs Nature Area. He is survived by his wife, Margarita Palutke, four children, and three grandchildren.

1971

Jeffrey Barnett, who practiced at the University of Connecticut Health Center from 1978 until his retirement, died May 22, 2021, of brain cancer. He was 75. During medical school, he met his wife, Doey, who was a student in the nursing school. Dr. Barnett completed his residency in internal medicine at Washington University's School of Medicine in St. Louis, Missouri, and practiced in Berkeley, California. He loved gardening, tinkering with cars, and reading about science, politics, and the arts. Two siblings survive him.

1974

Thomas Allyn, a nephrologist, died March 12, 2021. He was 74. After medical school, he completed his training at Massachusetts General Hospital and went on to private practice. He was chief of nephrology and chief of hemodialysis at Mount Auburn Hospital in Cambridge, Massachusetts. In 1981, he became chief of nephrology at Santa Barbara Cottage Hospital in California, where he co-directed the acute dialysis program until 2016 and received the hospital's Excellence in Teaching Award every year from 1987 to 2007. As co-chair of the Medical Advisory Panel at Santa Barbara Cottage Hospital for several years, he helped develop many patient care programs. He wrote about that process with Kenneth H. Cohn '76 and received the Dean Conley Award from the American College of Healthcare Executives for the best paper in 2009. In the 1980s, he co-founded the Santa Barbara Artificial Kidney Center, the Lompoc Artificial Kidney Center, and the first thriving multistation dialysis center in León, Mexico. He is survived by his wife, Denise, three children, five grandchildren, and three siblings.

1975

Edward Kohn, a psychiatrist, died June 12, 2020. He was married to Sandra Kohn, had one son, and was a stepfather.

1980

Hendrik "Rick" Michel Ecker, a cardiologist and emergency physician, died July 30, 2021, of cancer. He was 69. He completed his residency, cardiology fellowship, and cardiac electrophysiology fellowship at the University of Pennsylvania, where he met his wife, Kathleen. They traveled across Asia for two

years, doing humanitarian work in Thailand and Burma. Upon returning home to Massachusetts, they started their private practice, Lower Cape Cardiology in the communities of Chatham and Orleans. Dr. Ecker was an emergency physician for more than 32 years at Cape Cod Hospital. He was an avid Philadelphia sports fan who also spent years coaching his children's youth sports teams. He found joy in travel, participated in several humanitarian medical missions, and enjoyed painting and photography. In addition to his three children, he is survived by a brother.

1981 PhD

Trudy Lipowsky, whose PhD from Columbia was in pathology, died Aug. 15, 2021, of cancer. She was 74. In the Displaced Persons Camp in Bergen-Belsen, Germany, Dr. Lipowsky was born to Holocaust survivors who after three years were able to settle in Bayonne, New Jersey. She earned two master's degrees from Columbia in addition to her PhD. She completed a postdoctoral fellowship at the University of Medicine and Dentistry of New Jersey and received fellowships from the NIH and the American Heart Association. While at Columbia, she met her husband, Herb Lipowsky, a postdoc in physiology. They lived in Teaneck, New Jersey, until 1989, when Herb was recruited to Penn State. Dr. Lipowsky was an avid reader and an accomplished cook. She served on the board of State College Hadassah and was active in Congregation Brit Shalom, the American Association of University Women, and the Nittany Valley Symphony Guild. She visited local schools to speak about the Holocaust. She is survived by her husband and son.

PROVIDING FOR

FUTURE GENERATIONS OF VP&S STUDENTS



When asked why she chose to support areas such as the VP&S Club and stethoscopes, Dr. Carmen Neu, VP&S Class of 1963, said: “Because I think those areas are particularly important in enriching the students’ lives...It’s not all work and no play. And the VP&S Club provides interests that are outside the medical sphere, but it’s also an outlet for sports and the arts and music for students. And that is very important because students have other lives as well.”

VP&S has made an indelible impact on Dr. Neu. She spent 56 years at Columbia as a student and clinician and met her husband, Harold Neu, MD, when she was a third-year medical student. Harold Neu, MD, was an expert on infectious diseases and antimicrobial agents. He joined the Medical Center as an intern in 1960 and eventually became the Chief of the Division of Infectious Diseases at VP&S. In addition to his research, teaching, and prolific writing, he was widely known for warning of the overuse of antibiotics.

Dr. Neu included a bequest in her estate for the VP&S Class of 1963 Scholarship Fund. When asked about what motivated her to make the gift in this way she responded, “It will achieve a great purpose, providing scholarship funds for talented students. As one gets older, one needs to plan for the next generation. Estate planning is an important thing to do and Laura Tenenbaum and her colleagues in the Office of Planned Giving at VP&S helped me a great deal to plan for that.”

What opportunities will you create for future generations? Call our Planned Giving team at **212-342-2108** or email us at dev_plannedgiving@cumc.columbia.edu to learn about custom giving solutions that let you invest in the future of CUIMC.



President Richard Nixon signing the National Cancer Act of 1971

NATIONAL CANCER INSTITUTE

“PUBLIC LAW 92-218
92ND CONGRESS, S. 1828
DECEMBER 23, 1971

AN ACT

To amend the Public Health Service Act so as to strengthen the National Cancer Institute and the National Institutes of Health in order more effectively to carry out the national effort against cancer.

This act may be cited as **“The National Cancer Act of 1971.”**

Historical Moment for Cancer Care and Research

Read about one of the beneficiaries of the National Cancer Act of 1971, Columbia’s Herbert Irving Comprehensive Cancer Center, Page 20.