Columbia Medi

Vagelos College of Physicians and Surgeons

FALL 2025

The Art of Education

Celebrating 25 years of narrative medicine at Columbia

A New Era of Transplantation

Trailblazing the path to an expanded organ supply

Welcome to The One

A new destination for outpatient care in White Plains

“It’s **extraordinary** to **contemplate** all the **possibilities.**”

MICHEL SADELAIN
CAR-T Cell Therapy Pioneer

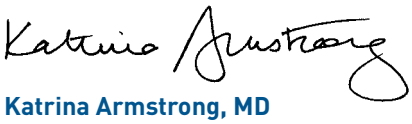
Dear Readers,

This fall semester, as I meet with colleagues, faculty, and students throughout VP&S, I'm repeatedly filled with gratitude and awe. Gratitude for our community's continued dedication to our missions of advancing research, caring for patients, and furthering medical education, despite ongoing uncertainty. And awe for the cutting-edge work that I witness across our departments—work that is driving science forward, saving lives, and allowing our students to learn and grow.

In this fall issue, you will read about some of this groundbreaking work. From pioneering developments in CAR-T therapies to game-changing advances in xenotransplantation, VP&S faculty are revolutionizing modern medicine. They are also reinvigorating the way medicine is taught: This year celebrates 25 years of Columbia's Program in Narrative Medicine, which explores the intersection of the arts and clinical care to provide better outcomes for both patients and caregivers. Among our local community's high school and undergraduate students, our YES in THE HEIGHTS program is increasing the pool of young people entering STEM fields. Meanwhile, our faculty and staff are expanding access to exceptional care at The One: Columbia and NewYork-Presbyterian's outstanding new 25-acre outpatient location in White Plains, which started welcoming patients in September.

VP&S is a special place—one that has led with grit and optimism for centuries. We are a family that, despite challenges in the world around us, dedicates each day to answering the toughest questions about human health and healing. We are a family that continues to progress and grow—most recently to welcome 140 new students to the Class of 2029. And we are a family that I am so proud to be a part of, one that inspires gratitude and awe, day in and day out.

All my best,



Katrina Armstrong, MD
Dean

EDITORS' NOTE

***Alan N. Schechter'63,** a long-time *Columbia Medicine* editorial board member who led a 60-year career at the NIH, passed away Oct. 15 as this issue was preparing for press. The editors join our community in mourning the loss of an esteemed colleague and advisor, and we will celebrate his life and work in the spring 2026 issue.

ColumbiaMedicine

Chair, Editorial Board
Lisa Mellman, MD
Samuel Rudin Professor Emerita of Psychiatry at CUMC

Editor
Kimberly Hiss

Science Editor
Susan Conova

Alumni Editor
Julia Hickey González

News Editor
Laura Nicholas

Editorial Assistant
Payton Clark

Contributing Copy/Research Editor
Emmalee C. Torisk

Contributing Writers
Carla Cantor
Helen Garey
Sara Pepitone
Amanda Rossillo
Sharon Tregaskis
Sarah C.P. Williams

Design and Art Direction
Eson Chan

Editorial Board
Anne Armstrong-Coben'89
Ron Drusin'66
Kenechukwu Egbuonu'25
Bruce Forester'65
Oscar Garfein'65
Sankar Ghosh, PhD
Jay Lefkowitch'76
Monica Lypson, MD
Kevin Ma'27
Kiran Majeti'28
Apoorva Mehta'25
Carmen Ortiz-Neu'63
Krithi Pachipala'26
Richard Polin, MD
Donald Quest'70
Alan Schechter'63
*Member in Memoriam**
Lorenzo Talbot-Foote'26
Joseph Tenenbaum, MD
Kathryn Tian'28
Ruiyan Wang'27
Elizabeth Williams

Columbia Medicine is published three times a year for alumni, faculty, students, and other supporters of the Vagelos College of Physicians and Surgeons. It is published by the college and the VP&S Alumni Association through the VP&S Office of Communications. Additional content can be found in the online edition at vagelos.columbia.edu/magazine.

Katrina Armstrong, MD
Dean of the Faculties of Health Sciences and the Vagelos College of Physicians and Surgeons

Vanita Gowda
Chief Communications Officer

Address correspondence to:
Editor
Columbia Medicine
Vagelos College of Physicians and Surgeons
630 W. 168th Street
New York, NY 10032

Email: columbiamedicine@columbia.edu

Alumni should update their addresses by writing the Alumni Association at the address above or calling the alumni office at 212-305-1472.

Faculty and staff should contact their departmental administrators to update their addresses, which are obtained through the Columbia University personnel system.

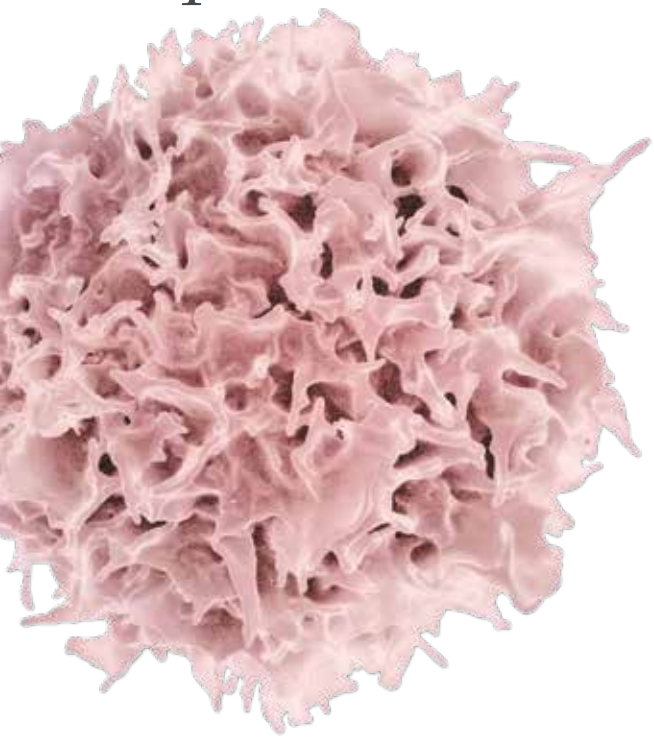
All others with address changes should contact VP&S Communications at columbiamedicine@columbia.edu.

Columbia University Vagelos College of Physicians and Surgeons

Vol. 45 No. 2
Fall 2025

in this Issue

departments



features

ON THE COVER: Michel Sadelain is founding director of the new Columbia Initiative in Cell Engineering and Therapy (CICET). Photograph by Jörg Meyer. Article, page 10.

News from around the Vagelos College of Physicians and Surgeons

VP&S news

VP&S Advances Health Care Through AI Innovation

In June, the Center for Innovation in Imaging Biomarkers and Integrated Diagnostics (CIMBID) at Columbia University officially launched with a day-long series of presentations and events that showcased the new center's broad expertise in leveraging artificial intelligence (AI) and biomedical imaging data for personalized medicine.

Led by Despina Kontos, PhD, CIMBID is a multidisciplinary center designed to advance research, education, and clinical translation in AI-driven imaging biomarkers and integrated diagnostics. Dr. Kontos shared her vision for the center, which brings together experts from multiple schools and departments at Columbia, with the goal of bridging technological innovation and clinical application, ensuring that advances translate meaningfully into real-world patient care.

AI has the potential to help providers make faster, safer, and more informed decisions. In addition to efforts through CIMBID, that promise is already being realized throughout VP&S through a range of clinical tools, such as an early-warning system that decreases risk of in-hospital mortality and a tool for guiding safer infant spinal taps. Building on this momentum, VP&S has launched the AI at VP&S Initiative, bringing together an interdisciplinary team of experts who are positioned to be global leaders in AI-driven innovation within health care.

RUDY DIAZ

Members of the AI at VP&S leadership and working groups, from left, Timothy Crimmins, Noémie Elhadad, Muredach Reilly, Namita Azad, Olajide Williams, Lauren Richter, and Rosa Lee

EILEEN BARROSO

Despina Kontos, founding director of CIMBID

"There's a real sense of urgency to rapidly integrate AI into research and clinical care," said Noémie Elhadad, PhD, chair of the Department of Biomedical Informatics and the leader of the AI at VP&S Initiative. "But at the same time, AI still feels nebulous for a lot of people. So we felt the need to take a step back, reflect on how best to harness AI, and how VP&S, CUIMC, and Columbia can lead in translating its potential into tangible impact for patients and health care systems."

While the AI at VP&S Initiative officially launched this year, six working groups—clinical care, research, oversight and governance, operations, training and education, and community health—had already been meeting for months to develop guidelines on the responsible use of AI at VP&S and exploring ways to use AI across the school's missions.

AI and Clinical Care

Clinicians want access to accurate and safe AI tools to speed up administrative work and improve patient care, said Timothy Crimmins, MD, associate professor of medicine, chief medical information officer at ColumbiaDoctors, and lead of the AI at VP&S clinical care working group.

Teams from multiple University departments—including radiology, neurology, and ophthalmology—demonstrated tools that can improve clinical decision-making. Columbia's portal to ChatGPT Education is HIPAA-

compliant, and with permission, Columbia researchers and clinicians can enter protected health information. "It's important that we don't become over-reliant on AI or let AI overrule or undermine the decisions we make with our patients," Dr. Crimmins said.

AI in Research

The research working group, led by Dr. Elhadad, is focused on advancing the scientific foundations of AI in health care and exploring novel methodologies to push the boundaries of what AI can do to accelerate discoveries. It also aims to facilitate and foster collaborations within the Columbia community and beyond.

AI in Medical Education

The training and education working group is reimagining the medical school curriculum and providing medical students with the skills they need to leverage AI tools.

For example, medical students can enter symptoms into ChatGPT and ask for a differential diagnosis. "There is a process of coming up with a differential diagnosis that we teach in medical school," said Lauren Richter, MD, assistant professor of biomedical informatics and pediatrics, who leads the training and education working group with Anhphan Ly, senior director of the Center for Education, Research, and Evaluation. "Using AI tools like this requires helping students evaluate what ChatGPT does: Is this a valid differential or not? How does it compare with a clinical expert?"

Business Processes

The AI at VP&S Initiative is also working to introduce AI to speed up business processes across the campus and make routine work more efficient.

"Some members of the group have used AI to slash the time it takes to complete some processes from hours to minutes," said Namita Azad, senior director of organizational development-transformation, who is part of the operations working group leadership.

Ms. Azad said the group is beginning to provide training to more staff. "We want to ensure that everyone understands what we mean when we say generative AI, or prompt engineering, and we've given them access to CU-GPT to start creating ideas about how we can use AI in our different business units."

Future Plans

The initiative has held several events and is planning more to help researchers, clinicians, staff, and students connect with each other and learn to use AI.

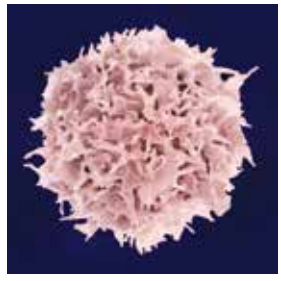
"To me, one of the exciting things about AI at VP&S is there's so much happening already," Dr. Elhadad said.

Columbia University and CUIMC: A History of Resilience and Change

In its nearly 260 years of existence, the medical school has faced several existential challenges—and persevered. When VP&S celebrates its 300th anniversary in 2067, the current climate may seem like a minor setback. This perspective was highlighted in the August event "Columbia University and CUIMC: A History of Resilience and Change," organized by the Office of Well-Being and featuring talks from James M. McKiernan'93, then serving in the role of interim dean of VP&S, and Katherine Satriano, head of archives and special collections. Dr. McKiernan and Ms. Satriano walked through centuries of difficult moments for VP&S and the Columbia University Irving Medical Center—from the American Revolution to the Great Depression and beyond. When we examine history, we learn how our forebears mobilized around challenges and set the course for the medical center's future growth, Ms. Satriano said. "We are all a link in a lineage of resilience."

Columbia Scientists Named Chan Zuckerberg Investigators to Advance Cell Therapies

Two teams at VP&S received funding from the Chan Zuckerberg Biohub New York (CZ Biohub NY) to develop next-generation, personalized cell therapies for cancer and autoimmune diseases. Aimee Payne, MD, PhD, chair of the Department of Dermatology, leads a project to develop cell therapies that eliminate harmful cells in patients with pemphigus, myasthenia gravis, and other autoimmune diseases. Catherine Spina, MD, PhD, assistant professor of radiation oncology, and Jeremy Worley, PhD, assistant professor of systems biology, lead a team that is working to adapt chimeric antigen receptor (CAR) T cell therapy—which has shown remarkable success in treating blood cancers—for the treatment of solid tumors.



NIAID

Colorized scanning electron micrograph of a T lymphocyte

The researchers are among nine new investigators to receive funding from the Investigator Program at CZ Biohub NY, which launched in 2023 with a mission to harness and bioengineer immune cells for the early detection, prevention, and treatment of a broad spectrum of age-related diseases. (See "The Frontier of 'Living Drugs'" on page 10.)

VP&S Graduation 2025

The 2025 graduation ceremony in May honored 136 students who received MD degrees and 44 students who received PhD degrees in biomedical sciences.

The students selected Siddhartha Mukherjee, MD, associate professor of medicine at VP&S, to deliver the graduation address. Dr. Mukherjee is an oncologist, researcher, and author whose books have made vast contributions to the public discourse on human health, medicine, and science.

In his address, Dr. Mukherjee shared his view of medicine and science as an eternal search—for cures for diseases and solutions to complex problems. "Medicine, of all professions, creates a perpetual yearning, a lifetime of desire for that which you cannot find," Dr. Mukherjee said.

The Class of 2025 graduates into a challenging environment for medicine, scientific research, and public health. In his remarks, James M. McKiernan'93, then interim dean of VP&S, commended the graduates on their resilience, courage, and compassion.

"We need your leadership to help navigate these times," Dr. McKiernan said. "With your knowledge and expertise, you have the opportunity to make an immense impact on not only your patients and your colleagues, but also on society at large. And in this, I find optimism that the future can be brighter than our past."

RUDY DIAZ

Graduates of the Class of 2025 with Monica Lypson and James McKiernan

MICHAEL DIVITO

White Coat Ceremony Welcomes New Medical Students

On Aug. 8, VP&S faculty welcomed 140 students into the medical profession with the annual White Coat Ceremony.

"The need for individuals who are dedicated to compassionate healing has never been greater," said Monica Lypson, MD, the Rolf H. Scholdager Professor of Medicine and vice dean for medical education at VP&S.

Jean C. Emond, MD, the Thomas S. Zimmer Professor of Reconstructive Surgery (in Pediatrics) and vice chair of the Department of Surgery, gave the keynote address. "As doctors, suffering is before us all the time, in the front of our minds, and we strive to relieve it," said Dr. Emond. "Our vision must guide us, along with our colleagues, forward as we seek to heal those who are sick."

After being cloaked in their white coats by VP&S faculty members, the students recited an oath in the Hippocratic tradition, written by members of the Class of 2029, and voted on by the class.

Inaugural VP&S Academy of Clinical Excellence Rising Star Award Honors Residents, Fellows

Sixty-one residents and fellows from VP&S were recognized for outstanding patient care at the inaugural Academy of Clinical Excellence Rising Star Award Ceremony in May. The mission of the Academy, which began in 2011, is to define, recognize, and perpetuate excellence in clinical care by faculty, trainees, and students.

The Academy is composed of members from every clinical department at VP&S.

DAVID DINI

Recipients of the ACE Rising Star Award

Dr. McKiernan, then interim dean of VP&S, delivered this year's lecture, in which he argued for the role of clinical excellence in building the reputation and sustainability of an academic medical center, especially in light of decreased federal research funding. He also highlighted Columbia clinicians who cared for major figures in history and Columbia doctors who have shaped clinical practice.

News in Brief

JOHN ABBOTT

Cory Abate-Shen

Cancer researcher **Cory Abate-Shen, PhD,** has been elected to the National Academy of Sciences. Dr. Abate-Shen is a professor of molecular pharmacology and therapeutics and the Robert Sonneborn Professor of Medicine, with additional appointments in the departments of Urology and Systems Biology at VP&S. She is an internationally recognized leader in genitourinary malignancies. Dr. Abate-Shen's innovative studies of genetically engineered mouse models for these cancers have led to the discovery of new biomarkers for early detection, as well as advances in cancer prevention and treatment.

Hashim Al-Hashimi, PhD, the Roy and Diana Vagelos Professor of Biochemistry and Molecular Biophysics, has been elected to the American Academy of Arts and Sciences. Over the past two decades, Dr. Al-Hashimi has developed techniques to determine 3D dynamic ensembles of RNA and DNA molecules at atomic resolution. These studies have reshaped structural biology, revealing dynamic ensembles as the fundamental behavior of biomolecules needed to understand and predict cellular activity quantitatively.

Hashim Al-Hashimi

COURTESY OF ALICIA CHIME

Alicia Chime

Alicia Chime, a PhD candidate, is the first graduate student at Columbia University to be accepted into the Gilliam Fellows Program at the Howard Hughes Medical Institute, a program designed to launch promising PhD students into impactful scientific research careers while fostering inclusive training environments. Ms. Chime is a graduate student in the Department of Biochemistry and Molecular Biophysics, focusing on pathobiology and molecular medicine.

Taylor B. Sewell, MD, was appointed assistant dean for admissions for VP&S. Dr. Sewell is an associate professor of pediatrics at CUIMC and joined the VP&S faculty in 2017. Dr. Sewell has long supported the Office of Admissions through interviewing, screening, and recruiting activities. Clinically, Dr. Sewell is a pediatric hospitalist who regularly attends on the general pediatrics inpatient teaching service alongside medical students and residents.

CUIMC Rallies on Capitol Hill for Research Funding

On Sept. 18, members of the CUIMC community joined hundreds of physicians, scientists, and patients from more than 40 states to meet legislators on Capitol Hill and advocate for medical research at the annual Rally for Medical Research.

"Educating policymakers about the need to have a robust budget for the NIH is so important," said Ross Frommer, vice president of government affairs at CUIMC, who helped organize the Columbia contingent, which consisted of 19 students, faculty, and staff from VP&S, the School of Nursing, and the Mailman School of Public Health, as well as colleagues from the Morningside and Manhattanville campuses. It was the largest representation by any one organization at the Rally.

The group met with legislators and staff of the New York congressional delegation and others to stress the importance of NIH funding.

"Medical research represents hope for a better tomorrow for our patients, and the NIH is a critical partner," said Jay Vyas, MD, PhD, associate dean for academic innovation at VP&S, who also helped organize the trip. "I believe that when we share our personal stories of NIH's impact on our training, research, and patient care, we can make a difference."

ROSS A. FROMMER

Members of the Columbia contingent at the Rally for Medical Research

Neighborhood outreach, service, and partnership

Community Connections

Jasmine McDonald and student Avery Garcia Flores

JÖRG MEYER

YES in THE HEIGHTS Celebrates 10 Years of Outstanding Achievement

By Sara Pepitone

A pathway program leads high school and undergraduate students to new possibilities

YES in THE HEIGHTS started in 2015 with minimal financial support, survived a COVID-era funding loss, then received a National Institutes of Health grant. Despite the ups and downs, the vision has been steady: Make science accessible to teenage students through mentoring and hands-on experiences personalized to their interests.

"For the young mind, YES in THE HEIGHTS is like a Disneyland for science discovery," says Jasmine McDonald, PhD, who co-wrote the initial grant and developed it through the Herbert Irving Comprehensive Cancer Center (HICCC). "The learning is deeply engaging, tailored, and transformative."

Each summer, up to 21 high school and undergraduate students are chosen for the eight-week summer program. They are selected holistically, with administrators looking for applicants with genuine inter-

est and growth potential—as demonstrated by personal essays—over academic excellence. The high school acceptance rate is 1%.

Once accepted, students are matched with mentors based on personal interests—like cancer research tied to a family experience—making their journey personal and impactful. The program is limited to high school students from the HICCC's catchment area (the five New York City boroughs, and Westchester and Rockland counties in New York, and Bergen County in New Jersey). Undergraduates come from partnerships with the City University of New York and Spelman College.

The students engage in research labs, clinical rotations, and workshops (on topics such as using confocal microscopy). Through exposure to research, real-world medical scenarios, and cutting-edge cancer tools, students gain a real understanding of patient care, from the communication of hopeful test results to the discussion of end-of-life realities.

There are also off-campus trips to destinations such as Governors Island, opening eyes to new environments within the city.

The full program runs two summers and includes career planning. Almost 100 students have participated since its inception 10 years ago.

Despite initial startup challenges, Dr. McDonald, an associate professor of epidemiology at the Mailman School of Public Health, remained committed to the program's success. And it has paid off.

In all, 100% of high school participants went to college, and 100% of college scholars have continued their education in graduate school or got a job in the science industry.

A Driving Force

Dr. McDonald, who won the 2021 Columbia University Teaching Award for her dedication and excellence, was not born with a love for school. But a couple of academically curious friends, a nudgy mom, and grandparents who showed her the essence of teaching steered her toward higher education.

Out of high school, she was accepted into the prestigious Meyerhoff Scholars Program at the University of Maryland, Baltimore County, where she learned professional development, lived in different cities doing research, and figured out how to perform and present on little sleep. "I learned how to move in spaces that I had never before been introduced to." At the end, she says, it's hard to believe you made it through.

She credits the Meyerhoff pathway program for her overall endurance and personal success—and she wanted to give that back to other students.

Today Dr. McDonald invests her skills and work ethic into YES in THE HEIGHTS by creating, planning, and revising the program to best provide a comprehensive experience. She considers the little things while managing the challenges of balancing research and program development amid the current funding uncertainties.

"It takes a village to help young people truly understand what academic medicine is," says Dr. McDonald, who cocreated the program with fellow epidemiologist Mary Beth Terry, PhD.

Preparing to Launch

YES in THE HEIGHTS graduates have pursued careers in medicine and science. Two went on to jobs at Pfizer and Gilead Sciences. Another did a master's in public health at Columbia.

Dr. McDonald enthusiastically recalls a recent conversation with a student who won a NASA challenge. She's been awarded money to grow mushrooms in space so astronauts can stay longer.

"She's brilliant," says Dr. McDonald. "She's an artist. She wanted to go to medical school, but not directly. She sees things in a different way."

When the student also needed guidance navigating a professional relationship and speaking up for herself, the program was there for her.

Program graduates learn to problem-solve by thinking in terms of "This is my idea; what are your thoughts?" instead of "What am I supposed to do?"

Committed to Quality

YES in THE HEIGHTS is funded through grants, philanthropy, and contributions. It costs $6,000 per student per summer, including hourly pay (40 hours per week) and stipends for research supplies, computers, and the like. A staff of approximately three is needed to provide ongoing support for individual student interests and needs year-round. Clinicians allow participants to rotate pro bono.

Dr. McDonald notes the collaboration and energy it takes to motivate young adults in the post-COVID era. Given the funding uncertainties, her greatest fear isn't losing the program—she'll do everything to keep it alive—her fear is diminished quality due to insufficient staff and budget. While she can cover a train ticket here and there or be a sounding board for a student, she cannot do it all alone.

"There's a difference between going to a local water park and Disneyland," she says, comparing good enough to great.

"Our program isn't just teaching students to read a publication or grow cells. It's also about: 'Can you talk to this clinician in a way that is clear, concise, and thoughtful?'" Dr. McDonald says. "It takes a village to help young people truly understand what academic medicine is."

Dr. McDonald, along with staff and students, hopes their village is still standing next summer—and for decades to come.

New devices, procedures, and guidelines for clinicians

Clinical *advances*

HEMANT SURYAWANSHI, COLUMBIA UNIVERSITY FERTILITY CENTER

The STAR microfluidics chip, designed at Columbia, contains hair-thin channels that enable AI-guided sorting to isolate the portion of a semen sample containing a sperm cell.

Columbia Develops STAR Technology for Men With Infertility

By Helen Garey

The Columbia University Fertility Center is using advanced imaging, artificial intelligence, robotics, and microfluidics to recover rare sperm cells in men with no detectable sperm in their ejaculate.

The condition, called azoospermia, affects approximately 10%-15% of men with infertility. It may be caused by structural abnormalities in the testes, prior surgical procedures, or previous treatment with radiation therapy or chemotherapy.

"With our method, many men who were previously told they have no chance of having a biological child now have that chance," says Zev Williams, MD, PhD, the Wendy D. Havens Associate Professor of Women's Health and director of the center at VP&S.

The STAR (Sperm Tracking and Recovery) method was inspired by high-tech tools that astrophysicists use to find celestial bodies in a universe filled with stars, planets, and other matter.

A Need for Alternatives

Healthy semen contains up to hundreds of millions of sperm cells per milliliter. Men with azoospermia have virtually no sperm in their semen.

"A semen sample can appear totally normal, but when you look under the microscope, you discover just a sea of cellular debris, with no sperm visible," Dr. Williams says.

Men with azoospermia who wish to have a biological child have very few options outside of adoption or sperm donation.

Some men with the condition may have a surgical procedure to extract sperm from the testes. However, this painful procedure is not always successful and can cause complications, including vascular problems, inflammation, and a temporary decrease in testosterone levels.

Another option is to process the semen sample with a centrifuge and then have specially trained technicians manually inspect the sample to find sperm. However, only a handful of laboratories perform this lengthy and costly method, which can damage the sperm and make it unusable.

A STAR Is Born

STAR was developed by a team of research scientists and clinicians at the fertility center, with Hemant Suryawanshi, PhD, serving as team lead in collaboration with experts in microfabrication, machine learning, and robotics.

First, the team employed high-powered imaging technology to scan an entire sample, taking over 8 million images in under an hour. A machine learning algorithm was developed to identify the individual sperm cells amidst a sea of debris.

Next, the team worked with microfluidics experts at Columbia to produce a chip engraved with a series of channels as thin as a human hair to isolate the portion of the sample containing the sperm cell.

Then, a robot was programmed to gently remove individual sperm cells milliseconds after they are discovered, bypassing the need for a centrifuge, lasers, dyes, or other damaging treatments.

Once a sperm cell is recovered, it can be inserted directly into an egg to create an embryo or frozen for future use.

"The challenge is like trying to find a needle hidden among a thousand haystacks—but doing it within one hour, and so gently that the sperm can be used to fertilize an egg and ultimately result in a successful pregnancy and healthy baby," says Dr. Williams.

Since STAR was unveiled last year, it has helped dozens of patients at the Fertility Center. One couple, who had been trying to conceive for 19 years, finally got their wish and started a pregnancy with sperm retrieved by STAR.

"We're using the same technologies that are used to search for life in the universe to help create new life right here on Earth," says Dr. Williams. "It's truly awe-inspiring to be able to help patients build the family they always dreamed of."

THE STAR METHOD was recognized as one of TIME's Best Inventions of 2025, and the Columbia University Fertility Center was ranked No. 1 on Newsweek's list of America's Best Fertility Clinics for 2025.

Learn more about the Columbia University Fertility Center at columbiadoctors.org/fertility-center *or 646-756-8282.*

Extracorporeal Shock Wave Therapy as Regenerative Medicine Tool

Extracorporeal shock wave therapy (ESWT) is a non-invasive treatment that uses high-energy sound waves to stimulate blood flow, initiating the body's natural healing response. The result: long-term relief from musculoskeletal pain.

"There are no needles or surgery involved, and shock wave therapy allows the body to create the cellular process needed to heal injured tissue," says Kristian Johnson von Rickenbach, MD, an assistant clinical professor of rehabilitation and regenerative medicine. "Patients can maintain normal physical activity levels throughout treatment, which is a plus."

First used in medicine in 1980 to eliminate kidney stones, ESWT has been evolving with new clinical applications ever since. ESWT is used to treat various musculoskeletal injuries, including small tears in muscles or tendons, plantar fasciitis, Achilles tendinitis, gluteal tendinitis, rotator cuff injuries, and stress fractures—often in combination with physical therapy.

There are two primary types of ESWT: Focused shock wave therapy uses piezoelectric mechanics to produce high-energy waves that penetrate deeper tissues. Radial shock wave therapy uses a pneumatic system to create lower-energy waves dispersed over a wider area for surface tissues. Both approaches can be used in combination, customized to the injury.

In addition to being non-invasive and achieving long-term pain relief, Dr. von Rickenbach says the fact that ESWT can be used "in season" is an important point for many patients. "It enables athletes to avoid the downtime associated with some other therapies and keep training, which is a very unique feature."

To generate shock waves, a handheld probe is placed over the patient's skin with an applied gel to help with energy transmission. Each session lasts 15-30 minutes depending on the area of the body being treated. A full series is three to four sessions, with one-week intervals in between.

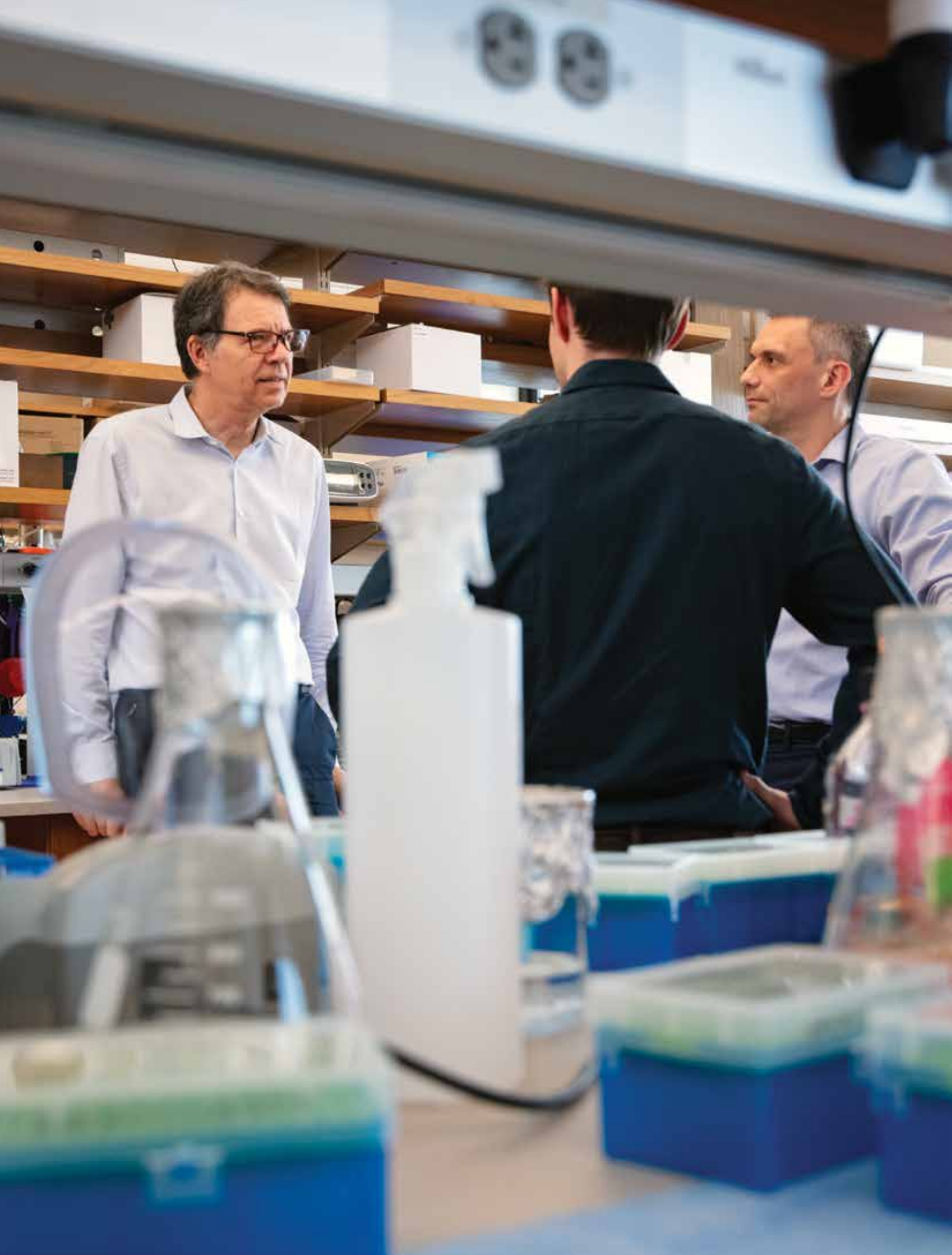
ESWT usually causes discomfort over injured areas, and some patients find the pressure applied by the probe uncomfortable. But Dr. von Rickenbach recommends against local anesthetic or numbing because the procedure requires feedback from the patient to guide treatment location and strength.

"Although the procedure itself can be painful, the beauty of this modality is that the force at which the shock waves are being generated can be increased or decreased in real time depending on a patient's response," Dr. von Rickenbach says.

Columbia's Department of Rehabilitation and Regenerative Medicine has used ESWT since 2020. Today, many physical medicine and rehabilitation providers have been trained in this modality, and other departments have started research on patient outcomes as well. Word is also getting out among patients. "More and more patients seek our expertise," says Dr. von Rickenbach. But only a few receive the procedure because it is typically an out-of-pocket expense.

ESWT's effectiveness compared to existing therapies varies based on the condition being treated. "Although more studies are needed, research suggests shock wave therapy is as effective and, in some cases, more effective than more invasive procedures, like steroid or platelet-rich plasma injections," says Dr. von Rickenbach. "We hope we can continue to prove the utility of shock wave so that one day all insurances cover it."

— Sara Pepitone



From an unconventional vision for fighting cancer to a celebrated candidate for curing lupus, three decades of CAR-T cell therapy development and production are entering a new chapter at Columbia.

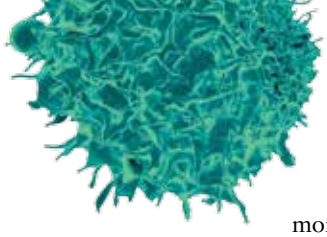
The Frontier of "Living Drugs"

By Susan Conova

NIAID

LEFT: "It's extraordinary to contemplate all the possibilities," says Michel Sadelain, pictured with Sascha Haubner and Maksim Mamonkin.

Photographs by Jörg Meyer



On the first floor of the Russ Berrie building on 168th Street, a transformation for Columbia medical research is almost complete.

This fall, an idea that went from being dismissed in the ’90s to launching a field of cancer therapy in the 2010s is taking new root at Columbia, as specialized equipment is installed and new recruits arrive to form the cell therapy production facility. By next year, the first engineered cells developed by Columbia researchers and manufactured in the facility should be ready for patients.

The facility ushers in new possibilities for cell therapy research at Columbia, giving scientists and physicians the ability not only to design new treatments in the laboratory, but also to produce the cells for testing in patients.

Cell therapy is the administration of cells as medicine to accomplish a range of objectives, including destroying harmful cells, repairing damaged cells, and regenerating a defective organ or tissue. And the field has exploded in the past 15 years.

Much of the excitement today centers around CAR-T therapies that genetically engineer a patient’s own T cells to fight cancer. The first two CAR-T therapies were approved by the Food and Drug Administration (FDA) in 2017, and five more have been approved since. Hundreds of CAR-T therapies—mostly for cancer, but increasingly for other conditions—are currently in development around the world.

The success of CAR-T can be traced to one of its original pioneers, Michel Sadelain, MD, PhD, founding director of the new Columbia Initiative in Cell Engineering and Therapy (CICET). During his three decades at Memorial Sloan Kettering (MSK), Dr. Sadelain created the first successful CAR-T cells and made critical contributions to their conception and production that have led to exciting outcomes in the clinic.

“He has done so much for the field, and I think without his advancements, we would never be able to do what we’re doing now,” says Maksim Mamonkin, PhD, associate professor of pediatric immunology, who is one of CICET’s newest recruits. “He was at the forefront of the most conceptual development in engineered T cells. When I saw the news that he was building a new team here, with a strong institutional commitment, I was very enthusiastic to join.”

Since his arrival at Columbia in the fall of 2024, Dr. Sadelain and CICET members have been building up the new cell production facility, recruiting new scientists, and exploring collaborations with a wide range of researchers on the medical and main campuses.

“The medical center includes an amazing cancer center and vast expertise in so many other fields of medicine—autoimmune disorders, neurology, transplantation, infectious diseases, and more—where we believe CAR-T cells can be very useful,” says Dr. Sadelain, who is also the Herbert and Florence Irving Professor of Medicine and the director of the Cancer Cell Therapy Initiative in the Herbert Irving Comprehensive Cancer Center. “The School of Engineering is very relevant with its bioengineering expertise; the business school is very relevant because we want to increase access to our novel therapies. We want to connect with the extraordinary artificial intelligence research on campus. And the new Chan Zuckerberg Biohub New York [with researchers from Columbia, Rockefeller, and Yale] is very aligned with what we do. So, there’s plenty of good reasons for wanting to work here.”

A Tenacious Start

Among the genetically modified cell therapies in development today, the most common is CAR-T targeting CD19, which has transformed the treatment of blood cancers that originate in B cells and is approved for people who don’t respond to initial treatments or experience a relapse.

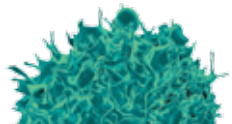
“The crux of CAR-T cells is that the medicine is not a pill, it’s not a chemical, it’s not a protein. It’s a human cell that’s been reprogrammed to eliminate cancer,” Dr. Sadelain says. Once introduced into a patient, CAR-T cells chase every cancer cell and, when CAR-T cells persist, remain ready to respond if the cancer cells reemerge. In an offhand remark to a journalist in 2012, Dr. Sadelain called the cells “living drugs,” a term that has stuck to describe this new class of medicines.

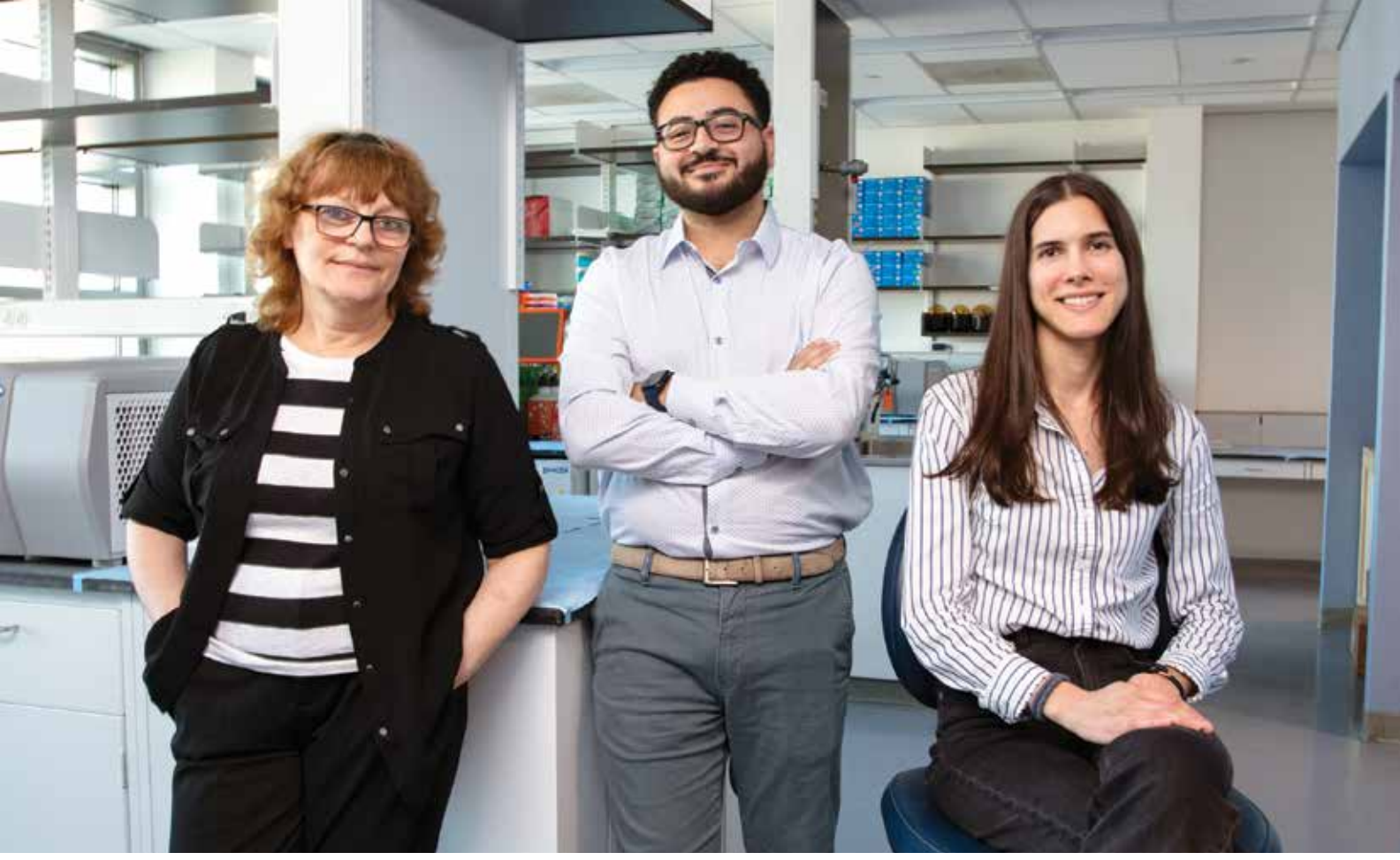
The outcomes for patients who are out of treatment options can be remarkable. “For some types of leukemia or lymphoma, a third to a half of patients who receive the therapy experience very durable remissions, many of which can be considered as cured,” Dr. Sadelain says. For many others, the disease can remain in remission for some time.

“The crux of CAR-T cells is that the medicine is not a pill, it’s not a chemical, it’s not a protein. It’s a human cell that’s been reprogrammed to eliminate cancer.”

But in the late ’80s and ’90s when Dr. Sadelain and a few others began investigating how to turn a patient’s own T cells into cancer assassins, most people did not believe in his vision. “The idea was, let’s say, not well received,” Dr. Sadelain recalls.

In the 1980s, Dr. Sadelain was in graduate school at the University of Alberta when the idea came to him. “I was struck by the way our bodies use T cells as a rapid response task force to repel invading viruses. I fantasized that it might be possible to instruct T cells to do the same thing to fight cancer,” Dr. Sadelain told an audience in 2012 as he accepted the William B. Coley Award for Distinguished Research in Tumor Immunology, one of several prizes to come for his work. (He





Staff at CICET's cell production facility enable Columbia to advance innovations. From left: Teresa Wasielewska, senior QC and analytics specialist, and George Y. Louis and Argyro Diasakou, process development and manufacturing

has since received the Gairdner Award, Warren Alpert Foundation Prize, and Breakthrough Prize in Life Sciences, and in 2025 alone, the King Faisal Prize in Medicine, Merkin Prize in Biomedical Technology, Meyenburg Prize, and Broermann Medical Innovation Award.)

T cells were known to fight cancer to some degree, but they usually fail. In the early days, skeptics asked: If our immune system can't already defeat cancer, how could it be pushed to succeed?

The first hurdle was genetically engineering a human T cell. After moving to the Whitehead Institute at the Massachusetts Institute of Technology, Dr. Sadelain worked on the problem in his spare time (after his adviser asked him to drop the research). "We were attempting this for several years until, finally, something started working," Dr. Sadelain says.

By the early '90s, T cells dubbed "T bodies" were engineered at the Weizmann Institute of Science. Inside the cells, a synthetic gene created a fusion protein: one half an antibody that recognizes and latches onto cell-surface molecules; the other half, the cells' normal T cell receptor, which triggers the cells to kill.

These first-generation CAR-T cells turned out to be lemons. They didn't last when repeatedly exposed to their target and generated a limited response.

Dr. Sadelain, who by then had moved to MSK, made several contributions that solved crucial shortcomings. To improve the cells' persistence and cancer-fighting abilities, he added a co-stimulatory protein to the synthetic receptor, ensuring the CAR-T cells could become fully activated. He also pioneered the use of CD19 as a target, chosen because the CD19 antigen is highly expressed in B cell malignancies compared to other potential targets.

Dr. Sadelain called his cells "chimeric antigen receptor (CAR)" T cells.

"Chimeras are creatures in mythology that can have the head of a lion, the body of a bird, and then the tail of a reptile," Dr. Sadelain says. "The CAR molecules we create are generated by stitching together parts of proteins that are normal, but never assembled that way in nature, like chimeras."

This design would become the backbone of today's CAR-T therapies. But first, it needed to be manufactured.

"Usually, if somebody discovers an interesting molecule, a company will see its potential, develop it, and bring it to trials. But in this case, we had to take it to the next step ourselves," he says. "The reaction from industry to our preclinical work was, 'Yeah, so what?'"

Dr. Sadelain's team learned to be an academic mini-biotech company to manufacture cells for clinical trials.

Isabelle Rivière, PhD, Dr. Sadelain's colleague at MSK, took the lead, inventing processes to grow high-quality engineered cells safe for treatment. While initial CAR-T production was complicated and time-consuming, Dr. Rivière's methods consistently generated clinical doses in under two weeks, minimizing the time ill patients must wait for treatment.

In 2007, the MSK team was the first in the world to infuse a patient with a CD19 CAR-T cell therapy, and the success of those cells led others to adopt the design. Today, of the seven current FDA-

approved CAR-T therapies, five target CD19 for the treatment of B cell cancers, including acute lymphoblastic leukemia (ALL) and several types of lymphoma.

In 2013, the team reported results of their first clinical trial, this time in adults with ALL. Remarkably, among all five patients, whose cancer had returned after initial treatment and who had no other options, the treatment eradicated the tumor and produced a complete remission.

Building on CAR-T at Columbia

Dr. Sadelain's arrival at Columbia creates an infrastructure for an already robust cell therapy clinical program.

Since 2017, Columbia University Irving Medical Center has been routinely delivering all FDA-approved products, while growing an extensive clinical research portfolio.

"More than 50% of our cell therapy patients so far have been part of a clinical trial, from a phase 1 study where we infused the first patient on Earth to the full spectrum of phase 3 randomized trials," says Ran Reshef, MD, director of CUIMC's adult cell therapy program. Increasingly, that includes treatments designed for solid tumors, such as prostate cancer, and autoimmune diseases, indications beyond the blood cancers for which CAR-T therapies were initially developed.

"We've never seen anything grow so rapidly as our T cell therapies," says Dr. Reshef. "If you look historically, CAR-T is growing more quickly than bone marrow transplants."

Delivering cells as a therapy involves complexities that most physicians are not familiar with and do not encounter in their routine practice.

"Even if we're not doing the genetic modification in-house, the handling of cells—putting them in the freezer, sending them for modification, receiving them, thawing them—takes expertise that a regular pharmacy or oncology practice doesn't have," Dr. Reshef says. "That's a resource we had to build. In addition, the management of potential side effects from CAR-T cell therapies requires expertise, and we have physicians here at Columbia who have been deeply engaged in this field for more than 15 years, which is a tremendous advantage."

Adding to the complexity, cell therapies are personalized. "There's no other medication where you make a product specifically for each individual patient," Dr. Reshef says. "It requires an army of coordinators, research nurses, and technical staff to make sure everything happens correctly."

All this experience and expertise means that the program is ready to test the new cell therapies from the Columbia cell production facility in 2026.

"The recruitment of Dr. Sadelain is, of course, a major game changer. He brings in a lot of enthusiasm and creativity, and we are ready to test any novel product that comes out of his new cell manufacturing facility."

The Challenge of Solid Cancers

The first CAR-T therapies were designed for hematological cancers, partly because the malignant cells are found in locations that T cells easily access. Solid cancers have proved more resistant; they usually erect barriers, including a protective microenvironment, that stymie natural T cells as well as CAR-T cells.

"A lot of these barriers are recognized today, and now it's up to creative scientists and physicians to come up with the solutions," Dr. Sadelain says. "But it won't happen overnight. It took 14 years to go from our landmark 2003 paper showing that human CAR-T cells can cure lymphoma or leukemia in a mouse to FDA approval in 2017."

At CICET, researchers are already working on CAR-T therapies for acute myeloid leukemia, T cell leukemias, glioblastoma brain cancers, and liver cancer. Dr. Sadelain's lab recently received funding to expand their work in ovarian cancer. "Columbia's expertise in cancer microenvironment research, systems biology, and biomedical engineering should be very helpful in this area," he adds.

Greater heterogeneity among antigens is also a bigger problem in solid tumors than in blood cancer, says Dr. Mamonkin, who is also director of laboratory and translational research in pediatric hematology, oncology, and stem cell transplantation. "The cancer cells that express the target, they get eliminated. The cells that don't, they survive and expand. At the end of the day, unlike mono-targeting in

THE **CAR** FACTORY

When CICET is ready to test new therapies, the cell production facility team steps in to ensure a safe product is delivered to patients.

Olivia Caunday Ep Rigot, PhD, the facility's associate director for quality assurance, handles tasks from securing proper equipment to training specialized cleaning staff.

"We need to control everything—including the way we mop the floors—to make sure we don't have any contamination," she says. "We're creating a precious product."

Production starts when patient cells are brought to the facility in a temperature-controlled cooler. The cells that will be engineered into CAR-T cells are separated in an automated machine, closed off from the room's environment, before undergoing genetic engineering and expansion.

Today, the process takes about a week. Before the therapy is delivered to a patient, a sample is removed for testing. On her desk, Dr. Caunday Ep Rigot has a thick binder filling up with standard operating procedures. "You can't skip any of these steps," she says. "These ensure that everything goes well and that the patient receives their therapy. You get so involved in the process, you sometimes forget that what we're doing is amazing."

The quality assurance and control teams at CICET ensure each product is rigorously manufactured and tested. From left: Nahian Rahman, facility operations manager; Olivia Caunday Ep Rigot, associate director for quality assurance; and Jagrutiben Chaudhari, associate director of quality control and analytics

lymphoid malignancies, we need to develop combinatorial antigen targeting, and that's probably where we'll start seeing deeper, more robust responses. But these approaches have to be designed carefully not to harm vital healthy tissues in the patient."

CARs Beyond Cancer

Three years ago, German researchers caused a stir when they reported that five patients with severe lupus went into drug-free remission after receiving CD19-targeted CAR-T cells.

"The findings stunned rheumatologists worldwide," says Anca Askanase, MD, professor of medicine and director of the Lupus Center at Columbia University, who has been an investigator on several trials of cellular therapies for lupus. "It suggested the possibility that CAR-T cell therapy could represent the long-sought cure for lupus."

In lupus, as with many blood cancers, CAR-T therapy targets the B cells that mistakenly attack the patient's own tissues—although long-term outcomes are unknown.

"They have to be carefully studied now, and that's what's happening at Columbia," Dr. Sadelain says. "It's one of the main reasons why I'm here, and we intend to intensify that effort."

Autoimmune disease is an exciting new direction for the CAR-T field, and one that is moving rapidly. "In this case, CAR-T cells didn't have to be reinvented. The recipe is exactly the same one we used in cancer," Dr. Sadelain says.

CAR-T cells are also in early trials at Columbia for multiple sclerosis (MS), which was considered a T cell-driven disease until B cells were found to play a critical role in its pathology. Antibody therapies to deplete the B cells have revolutionized many patients' lives—but they can't cross the blood-brain barrier to limit the inflammation MS causes in the brain and spinal cord. Long-term use also leaves patients vulnerable to serious infection.

"So many of our patients are still gradually getting worse, even in the absence of relapses, and new approaches are needed," says Claire Riley, MD, the Karen L. K. Miller Associate Professor of Neurology and director of the Columbia Multiple Sclerosis Center. CAR-T cells can pass through the blood-brain barrier and represent a potential paradigm shift. "Instead of chronically suppressing the immune system, we may be able to achieve a temporary, but deeper, B cell depletion that recalibrates the immune system and induces long-term remission. It's an exciting path to embark on."

"Instead of chronically suppressing the immune system, we may be able to achieve a temporary, but deeper, B cell depletion that recalibrates the immune system and induces long-term remission."

Slightly different cellular recipes are being developed by other Columbia researchers. Aimee Payne, MD, PhD, the chair of dermatology, has developed CAART cell therapy—a clever twist of CAR-T—for pemphigus, a blistering disease that is sometimes fatal, and myasthenia gravis, which causes potentially life-threatening muscle weakness. CAR-T works a bit like a sledgehammer, indiscriminately killing all B cells, not just those causing disease. CAAR (chimeric autoantibody receptor) T cells are more selective, using the autoantigen as bait to lure only the autoimmune B cells to their deaths.

CAR-T cells could also solve problems in organ transplantation, where one in five patients experiences complications when their immune systems are suppressed to limit rejection. Instead of engineering T cells to be better assassins, scientists are using CARs to engineer regulatory T cells to be better peace negotiators. With a CAR approach, regulatory T cells could be trained to home in on the transplanted organ and lower the risk of rejection.

"We don't know much yet about engineered regulatory T cells, but armed with what we've learned in cancer and our knowledge of T cell engineering, there's good reason to hope it could work," Dr. Sadelain says.

Maksim Mamonkin and Sascha Haubner

New Possibilities

Though the first cells produced by the new facility are expected in 2026, they won't be the first cell therapy designed and created at CUIMC. Since 2022, the Cellular Immunotherapy Laboratory has been producing virus-specific T cells for life-threatening viral infections in patients with impaired immunity, such as recipients of bone marrow and solid organ transplants or cancer patients on chemotherapy.

"The idea behind our cell therapy is that we can take T cells from a patient or a donor, select the ones that recognize the virus, and multiply those in the lab so we create a population of immune cells that we give to the patient to control the infection," says Pawel Muranski, MD, director of the Cellular Immunotherapy Laboratory.

The cells are still undergoing clinical testing, but Dr. Muranski says they've seen several patients experience complete and "spectacular" regression of their infection—or lymphomas driven by the virus. "We have a very large transplant program at CUIMC, and there's a huge need for this type of treatment," he says. "Having CICET here puts us on a completely different level in terms of expertise and capabilities, and we're very excited by the possibilities."

What's Next for Blood Cancers

The rise of CAR-T therapies for solid cancers, autoimmune diseases, and transplantation shouldn't be taken as a sign that the therapies have reached their heights with blood cancers.

Sascha Haubner, MD, the first faculty member recruited to CICET, started working eight years ago at MSK to extend CAR-T therapy to myeloid malignancies, blood cancers that originate in hematopoietic stem cells or myeloid progenitor cells.

Acute myeloid leukemia (AML) is particularly challenging for CAR-T because malignant and healthy hematopoietic stem cells

"The prospect of being curative, potentially with a single cell infusion, motivates our research—but we are also aware of the economics."

are not easily distinguishable on their surface—making healthy stem cells prone to collateral CAR-T damage.

"Healthy stem cells are required for replenishing red blood cells, platelets, and basically the whole immune system," says Dr. Haubner, an assistant professor in the Department of Medicine. "They must be protected."

Drs. Haubner and Sadelain have devised an inventive CAR system that uses Boolean logic to make a complex decision to kill or not to kill based on the presence of two antigens and their abundance on the cancer cell.

Their "IF-BETTER" CAR-T cell contains two different CARs that work together to kill obviously malignant cells, spare obviously healthy cells, and, most impressively, kill the malignant cells that are masquerading as healthy cells.

Vladimir Bermudez

In 2024, Dr. Haubner's research enabled the opening of a phase 1 clinical trial at MSK for patients with relapsed or refractory AML, using the "IF-BETTER" logic-gated CAR-T cells for the first time to treat patients. "The trial is ongoing and showing early promising signs. Ultimately, we aim to achieve long-term remissions," Dr. Haubner says. His new research lab at Columbia is developing novel CAR-T cells with the goal of offering more AML patients access to this promising therapy.

CARs for Kids

Children, fortunately, rarely get cancer.

"But because of that, it's very difficult to get much support from biotech and pharma companies since the market size is very small," says Dr. Mamonkin, who is building a pediatric cell therapy program at Columbia with Liora Schultz, MD, associate professor of pediatrics, who just arrived this fall from Stanford.

The focus on children will be a new mission for Dr. Mamonkin, who is known for developing CAR-T therapies at Baylor College of Medicine, including a therapy for T cell malignancies that has now entered a multicenter phase 2 trial in the United States.

Targeting T cells with T cells required new engineering to prevent the therapeutic cells from mistakenly turning on each other and committing "fratricide." Initially, the response rate in patients was low, but as Dr. Mamonkin's team changed manufacturing processes, response rates and outcomes in patients with aggressive T cell leukemia dramatically improved. "It was a long process, but shepherding a new conceptual therapy all the way from the lab to patients and seeing its real impact in the clinic was very rewarding."

At Columbia, the Mamonkin lab will expand into solid and brain cancers, autoimmunity, and other difficult diseases that could be treated with engineered cell therapies.

"Our main focus will be conquering diseases that don't really have any good solutions at present."

Building Cheaper CARs

As CICET works to create new types of cell therapies for testing, its researchers are trying to reduce the price tag, which can climb to $2 million when combined with the costs of the hospital stay.

"Making a therapeutic cell is more expensive than making a chemical," Dr. Sadelain says. "The prospect of being curative, potentially with a single cell infusion, motivates our research—but we are also aware of the economics. Part of the solution lies in the biology. If you make better cells, you will need fewer cells. And that will facilitate access to cell therapies. So we keep doing research to improve the efficacy and safety of engineered cells."

There's a clear economic benefit to having the cell production facility at Columbia, says Vladimir Bermudez, PhD, associate director of CICET. "We have a Good Manufacturing Practices [GMP] team, which includes process development, analytical testing, production, quality control, facility operations, and quality assurance, that works closely with our research labs to lower the overall cost of developing and manufacturing cell and gene therapies."

Dr. Bermudez also believes CICET can be a source of products for rare conditions that pharmaceutical companies offload because they're not profitable.

"We're not just manufacturers; we have aspirations of developing new business models to service the community."

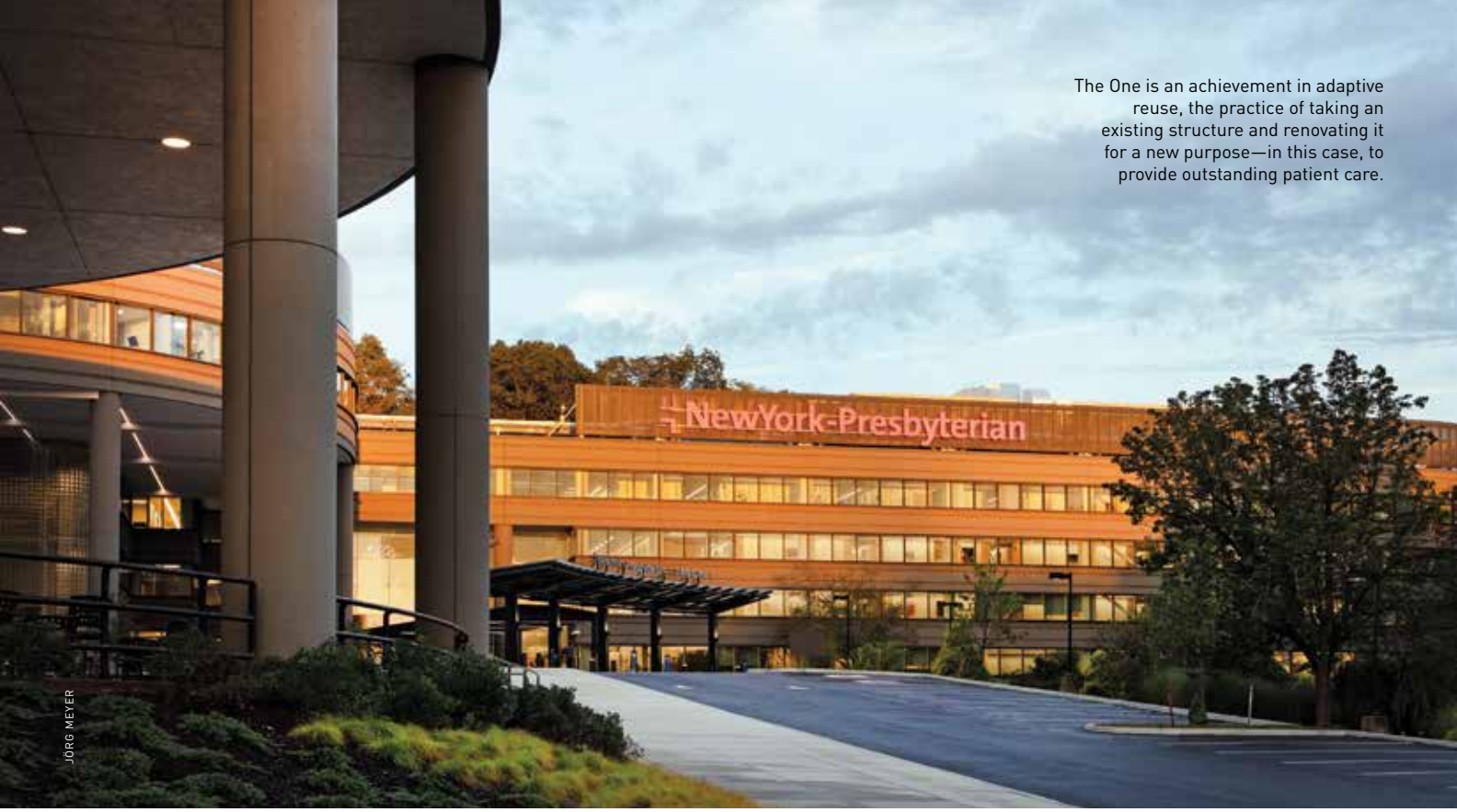
A Collaborative Future

"I think, today, we're going through a kind of Cambrian explosion in the CAR-T cell field," Dr. Sadelain says, comparing the worldwide surge of CAR-T designs and applications to a period 500 million years ago when a diverse array of animals simultaneously emerged on Earth.

What started with his design has rapidly evolved into armored CARs (designed to bulldoze through a cancer's microenvironment) and even TRUCKs (T cells Redirected for Universal Cytokine-Mediated Killing). Dr. Sadelain's own Columbia lab is working to develop CAR-T cells from induced pluripotent stem cells to provide "off-the-shelf" options.

"Amongst my big objectives here, running my lab may not be the most important. I will, of course, passionately continue my lab, but my main contribution will be to guide and to teach," Dr. Sadelain says. "I have extensive experience in cell engineering and cell therapy, and probably the best use of my time is to share this knowledge. The center exists to support and work with all investigators who want to study or pursue cell-based medicines. We are here, ready and wanting to collaborate." ❖


The One
Center for Advanced Care
NewYork-Presbyterian | COLUMBIA



JÖRG MEYER

The One is an achievement in adaptive reuse, the practice of taking an existing structure and renovating it for a new purpose—in this case, to provide outstanding patient care.

WELCOME TO THE ONE

Bringing advanced care beyond city limits, Columbia's newly opened 240,000-square-foot facility was carefully designed to serve its patients and community.

PHOTOS COURTESY OF NEWYORK-PRESBYTERIAN

By Amanda Rossillo

The first time James McKiernan'93 visited what would become Columbia and NewYork-Presbyterian's newest outpatient location in White Plains, New York, in 2023, it was a PepsiCo office building filled with desks, old printers, and isolated cubicles. By his next visit a year later, it was a completely gutted and bustling construction site.

This June, when arriving for the ribbon-cutting ceremony, Dr. McKiernan was awestruck to enter the vaulting, entirely transformed space that is now NewYork-Presbyterian The One: a 25-acre facility that brings distinctively advanced and integrated ambulatory care to Westchester County. "We're not just replicating what we do in the city—we're improving it and bringing it here," says Dr. McKiernan, the John K. Lattimer Professor of Urology, senior vice dean for clinical affairs, and CEO of ColumbiaDoctors. "There's nothing like it in Westchester County at this scale."

Patients visiting ColumbiaDoctors at NewYork-Presbyterian The One can receive advanced imaging, testing, and procedures on-site.

DIANE BONDAREFF

The 240,000-square-foot center, which started welcoming patients in September, offers some impressive numbers: It houses nearly 200 clinical rooms in the ColumbiaDoctors practice, 10 operating rooms, 20 infusion bays, a diagnostic imaging suite, interventional radiology, a state-of-the-art physical and occupational therapy rehabilitation gym, and a cafeteria. Patients of all ages can get care across over 90 specialties and subspecialties with the latest technology, treatments, and access to clinical trials.

But for providers and patients alike, The One is more than just a building—it represents a new model of care that blends highly specialized expertise with a comprehensive, coordinated approach that treats the whole person, rather than isolated symptoms.

"The principle was that we wouldn't open regular doctor's offices. Instead, we formed multidisciplinary Centers of Excellence around women's health, men's health, children's health, cardiovascular health, and neurosciences, where patients could see multiple doctors in one building who are all top experts in their fields," says Dr. McKiernan. "It's such a better way to provide health care."

Bringing Back Synergy

For George Christolias, MD, assistant professor of rehabilitation and regenerative medicine at VP&S and medical director for ColumbiaDoctors at The One, this model is an urgently needed shift within a

COURTESY OF NEWYORK-PRESBYTERIAN

JAMES MCKIERNAN

GEORGE CHRISTOLIAS

PORTRAITS BY JÖRG MEYER

medical landscape that has become increasingly fragmented. "With specialization comes extreme expertise, leading-edge technologies, and state-of-the-art procedures," he says. "But something is also lost, which is the holistic approach of our family physicians from when we were young."

Such an approach is invaluable for managing health in the short and long term. Rather than addressing symptoms in siloes, The One is designed to serve each patient with 360-degree care, allowing providers to contextualize concerns within the bigger picture, leading to more informed and personalized treatments. This also results in a more unified patient experience—one characterized by continuity and convenience as opposed to juggling disconnected referrals across office locations.

The One's Centers of Excellence offer the best of both worlds: internationally recognized experts who collaborate across disciplines to treat patients from all angles, no matter what brings them in.

Consider a hypothetical patient who has cancer. At The One, their treatment would extend beyond oncology, incorporating the expertise of cardiologists, hepatologists, and other specialists, with resources like rehabilitation therapy and behavioral health services—all available on-site.

"People shouldn't have to choose between their time and quality of life or getting the best possible care."

Breast cancer specialist Melissa Accordino, MD, associate professor of medicine at VP&S and the hematology/oncology lead for The One, believes this approach can make all the difference for patients. "It's a huge team sport," she says. "It really sets us apart from other institutions in the area."

A New Northern Frontier

The One isn't Columbia's and NewYork-Presbyterian's first foray into Westchester; offices in Bronxville, Tarrytown, and farther north have provided outpatient care on a smaller scale for roughly a decade. But during the COVID-19 pandemic, as the virus ravaged New York City and people grew fearful of leaving home, it became increasingly difficult for suburban communities to access the more advanced care available at Columbia's Manhattan locations.

This isolation magnified an existing problem that had been weighing on both patients and providers for a long time: the commute.

The unpredictable city traffic, combined with the financial burdens of paying for tolls, parking, and child care, and taking hours off work for an appointment, would wear anyone down. For people who need regular medical treatment, the inconvenience and stress make an already difficult situation even worse.

Dr. Accordino has seen too many patients at the main campus who've had to receive their cancer treatments alone because their loved one or caregiver couldn't find a place to park and was circling the block below for a spot.

"For many patients, it's just too much," says Dr. Accordino. "People shouldn't have to choose between their time and quality of life or getting the best possible care."

As "a northern version of the medical center," as Dr. McKiernan puts it, The One removes that choice, combining amenities like a large parking garage and free valet service with advanced medicine. "This is the largest capital project for outpatient space that we've done since 1968, when Herbert Irving Pavilion, originally named for Dana Atchley, was built," he says. "Now it's time to deliver on our part of the deal, which is bringing our great doctors and great research."

Bigger and Better

Columbia's and NewYork-Presbyterian's commitment to more accessible care was the guiding vision behind The One as a concept and is reflected in every aspect of the facility itself, from staffing to the space's physical layout.

Rae Vagg, chief operating officer for ColumbiaDoctors, hopes patients and caregivers sense the difference before they even walk through the door.

State-of-the-Art Tech

The One is equipped with gold-standard diagnostic, therapeutic, and rehabilitation tools, but also features the latest technologies available—some of which can't be found anywhere else in Westchester County:

- **Bertec® Vision Advantage™** uses a head-mounted tracker to identify vestibular ocular reflex dysfunction and left/right asymmetries, providing more objective assessments of baseline and dynamic visual acuity and gaze stability.
- **Photon-counting CT scanning** creates ultra-high-resolution images of the heart that include spectral data, which significantly improve the detection of coronary artery disease.
- **The PillCam™ capsule endoscopy system** is a minimally invasive ingestible camera that captures diagnostic images of the small intestine—a region that is not easily viewable through traditional endoscopy.
- **ZeroG® Gait and Balance System** is a robotic body-weight support system that helps patients walk, perform functional activities, and engage in balance and fall protection training by anticipating and adjusting to their movements and providing resistance.

The One was designed with growth and flexibility in mind to accommodate changing patient needs, providing opportunities to bring even more advanced technology to the facility over time.

COURTESY OF NEWYORK-PRESBYTERIAN

COURTESY OF NEWYORK-PRESBYTERIAN

"We want to put patients at ease," says Ms. Vagg. "From convenience and access to customer service, the patient, physician, and provider experiences were at the forefront of our decision-making."

Natural green spaces featuring outdoor seating and a pond reminiscent of a Japanese garden lead to the main entrance filled with natural light, which has kiosks and clear navigational signage directing visitors to centralized reception desks on each floor. Exam rooms are spacious and largely identical to maximize efficiency and flexibility, with related specialties and those with similar equipment needs located near each other. Behind the scenes, there's no physical separation of departments, so care teams and providers from different specialties can easily collaborate.

Upon checkout, on-site support staff schedule follow-up and referral appointments for patients before they leave the building—some can even be scheduled for the same day.

"It's an incredible investment in the Westchester community," says Aaron Landon, ColumbiaDoctors' executive director of operations. "A lot of people in Westchester and surrounding areas are already seeking care from Columbia. The One is creating access to everything our main campus offers, close to home. It really is a second-to-none experience for patients locally."

Strengthening and Transforming Partnerships

Bringing The One to life relied on extraordinary collaboration among the many internal and external partners involved. "Everyone has been very cooperative and enthusiastic," says Dr. Christolias. "The willingness of Columbia and NewYork-Presbyterian to work together to make this happen has been outstandingly, resoundingly positive."

"The willingness of Columbia and NewYork-Presbyterian to work together to make this happen has been outstandingly, resoundingly positive."

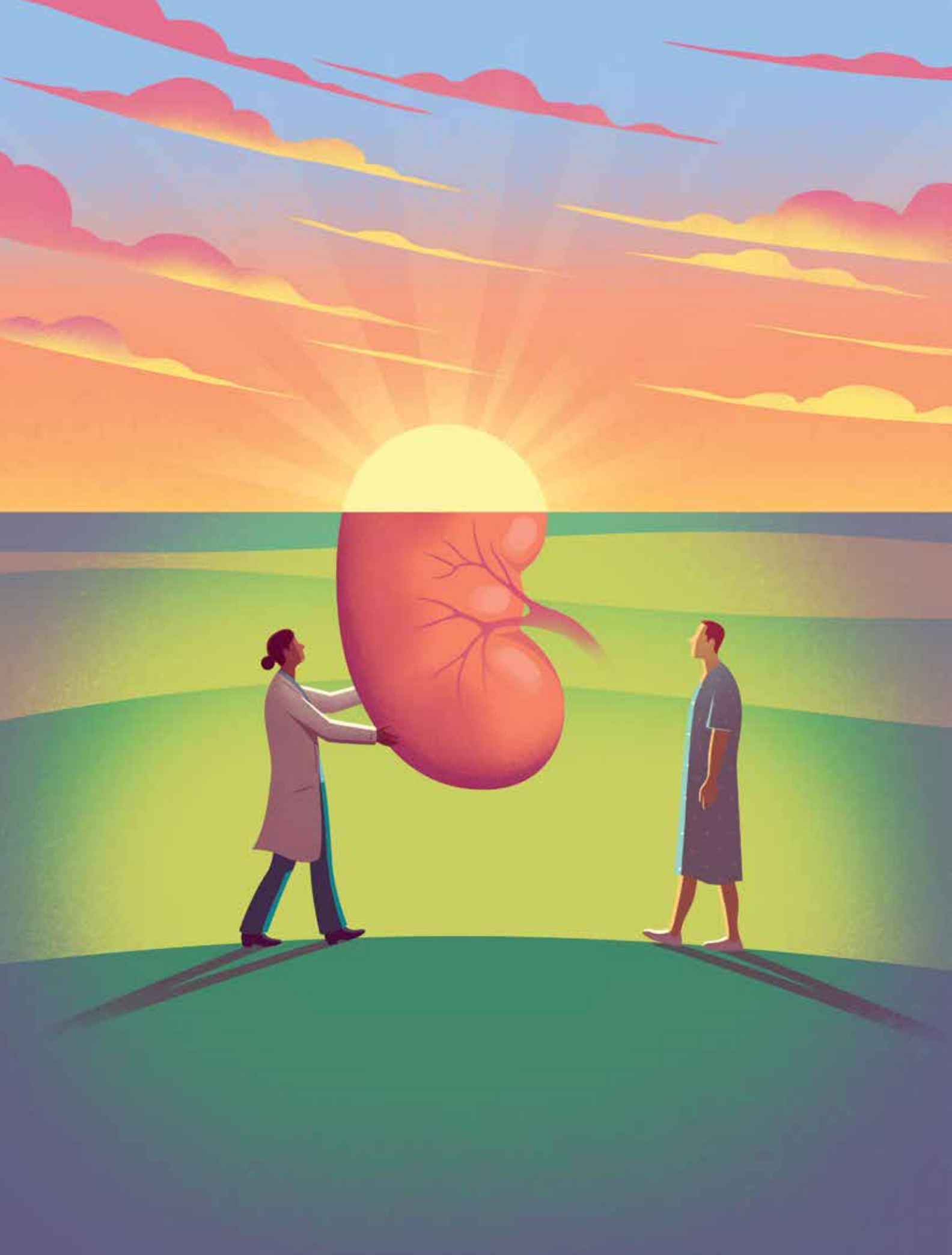
Ms. Vagg feels similarly, sensing that this massive joint undertaking signals "a new paradigm" in Columbia's longstanding relationship with NewYork-Presbyterian. "We're making these forward-looking decisions together," she says. "I think this establishes the foundation of our partnership moving ahead."

As for its name, "The One" references several meanings. It's a nod to the physical street address: 1111 Westchester Ave. It also acknowledges the under-one-roof approach to comprehensive care, provided by the No. 1 doctors and hospital in the region.

Whatever the etymology, Dr. Christolias is excited for The One to live up to all its name encompasses. "We all have one life. How can we live that life in the healthiest way possible? By coming to the one place that will deliver on its promise. And sometimes, we have only one chance to get it right." ❖

ABOVE: Fully equipped, state-of-the-art operating rooms and light-filled clinical spaces ensure patients get top-notch care in a comfortable, welcoming environment.

LEARN MORE about ColumbiaDoctors at NewYork-Presbyterian The One by visiting columbiadoctors.org/TheOne.



A New Era in Organ Transplantation

Columbia researchers are stretching the limits of what is possible for kidney, heart, and liver transplants, pioneering ways to expand the organ supply and avoid lifelong immunosuppressant drugs for patients.

Nicholas, a sanitation worker in Staten Island, was in his late 20s when he was diagnosed with kidney failure—likely due in part to genetic factors—and told that he needed a new kidney. His mother had undergone a kidney transplant when Nicholas was a teenager, so he already had some idea of what to expect after an organ transplant: lifelong immune-suppressing drugs. The medications, he knew, would prevent his body from rejecting the new kidney. They would also make him more prone to infections and long-term complications.

Nicholas' father agreed to donate a kidney to him, and their medical team at NewYork-Presbyterian/Columbia began planning the transplantation surgery. That's when Nicholas first heard about the PANORAMA clinical trial. Nicholas could couple the kidney transplant with a bone marrow transplant, also from his father. If it worked, the experimental dual transplant would convince his body's immune system to accept the new organ. He might be able to forgo lifelong immunosuppression and avoid the severe side effects and illnesses that can accompany such drugs.

"Not having to be on immunosuppressants for the rest of my life was very appealing," says Nicholas. "I had seen the long-term effects on my mom and knew that it wasn't ideal."

In April 2023, Nicholas received one of his father's kidneys, as well as an infusion of his bone marrow. By April 2024, he had been fully weaned off all immune drugs. He was the second patient in the trial to achieve this status.

"It's very gratifying to see how well he is doing," says Joshua Weiner, MD, the transplant surgeon leading PANORAMA. "It feels kind of like magic."

Of course, the breakthrough results are far from magic: They follow decades of deep research into exactly why the human immune system rejects organ transplants and how to avoid this potentially fatal reaction. Columbia researchers have been at the forefront of studies on how to make the body tolerate transplants without shutting down the immune system.

By Sarah C.P. Williams

DAVIDE BONAZZI

Their results have implications for improving human-to-human transplants and advancing xenotransplantation, which involves using animal organs in humans.

The challenges of making one person's immune system tolerate an organ from another person without any immunosuppressant drugs, it turns out, overlap with the challenges of making a person tolerate an organ from another species. Achieving the first is a kind of stepping stone to the second.

"The potential implications of this line of research are just mind-boggling," says Megan Sykes, MD, director of the Columbia Center for Translational Immunology (CCTI). "There are over 100,000 people waiting for organs right now, and thousands die every year. With xenotransplants, we could be transplanting all of them."

Joshua Weiner

JÖRG MEYER

At NewYork-Presbyterian/Columbia, surgeons have not yet transplanted an animal organ into a human, but Dr. Sykes and her colleagues say they are making plans to do so.

"Now is a very auspicious time in the field," says Columbia professor of surgery David Sachs, MD, an investigator at the CCTI and a longtime leader in xenotransplantation. "We're right at the cusp of taking this from many years of basic research to the clinic."

Teaching Transplant Tolerance

In 1973, researchers in London studying mice born without a thymus—a small organ near the heart that trains T cells produced in the bone marrow to recognize foreign antigens versus self-antigens—discovered that the animals could tolerate tissue grafts from other species. When they transplanted rabbit skin onto the backs of the mice, the mice grew a patch of rabbit hair. By contrast, mice with an intact thymus rejected such transplants; their rabbit skin grafts blackened and shriveled. Intrigued, the scientists expanded their tests.

"These researchers even described putting chicken skin on the mice, and the [thymus-free] animals started to grow feathers," says Dr. Sachs. "For those of us interested in transplants, this was a huge sign that it might eventually be possible to transplant organs from other animals into humans."

The London experiments were some of the first suggesting that the body could be coaxed to tolerate a transplant without an immune response. They also hinted that the thymus and its immune cells were the key to this tolerance.

At the time, Dr. Sachs was the chief of transplantation biology at the National Cancer Institute and was interested in how to overcome the major challenges with organ transplantation. There were not—and still are not—enough human organs for those who needed them; today, about 5,000 Americans a year die while on a transplant waiting list. In addition, anyone who receives a donor organ must remain on immunosuppressant drugs to keep their immune system from attacking the new organ.

"These patients live with a chronic illness," Dr. Sachs says. "They have to take many, many pills a day and deal with all the side effects and complications, which include things like diabetes, high blood pressure, osteoporosis, and an increased infection and cancer risk."

Even with immunosuppressants, transplanted solid organs often fail after five or 10 years, depending on the organs—mostly because the immune system eventually attacks them. This imperative to re-transplant

patients with a second donor organ further burdens the growing lists of those waiting for new organs.

True transplant tolerance—a healthy, fully functioning immune system that tolerates a new organ indefinitely—could solve all of these problems. Without the hazard of organ rejection, patients could receive a donor organ and forgo lifelong immunosuppressants. Those organs could even come from other species, offering a potentially limitless source of new organs.

Building on the findings about thymus-free mice, Dr. Sachs—along with Dr. Sykes, who had trained in his lab before starting her own transplant research program—began studying how to achieve transplant tolerance in animals with intact immune systems. Simply removing their thymus was not enough, as the immune cells the organ had produced throughout the animals' lives would already be circulating in the blood. Instead, more creative approaches would be required.

The Science of Self

White blood cells are made in your bone marrow, and then travel to the thymus gland to mature. In the thymus, these critical immune cells (T cells, short for thymus cells) learn what molecules are "self," or are part of your own body, and should be ignored. Everything else, including not only pathogens, but also tissues from other people or animals, can provoke an immune reaction.

In the 1990s, Drs. Sachs and Sykes started testing how to co-opt this process and teach a healthy mouse's immune system to recognize a new organ as "self." They discovered that there were two ways to do this: Transplant bone marrow from an organ donor at the same time as a new organ, or transplant a matching thymus. Either approach on its own could coax the recipient's newly developing T cells into recognizing the donor's cells as "self."

Using these methods, Dr. Sykes successfully transplanted pig skin onto mice. Again, the animals tolerated the skin—the same outcome as the thymus-free mice. But this time, the mice had fully functioning immune systems, capable of fighting off germs and keeping them healthy.

"I still clearly remember being at this meeting and calling back into my lab to see how everything was going," says Dr. Sykes. "My postdoc told me that, for the first time, we had achieved tolerance in a mouse with an intact thymus. It was incredibly exciting."

But humans aren't mice, and over the last decade, Dr. Sykes has dug into the particulars of how a human immune system could be coaxed to tolerate a xenotransplant from a pig. The species has a body anatomy compatible with a human's, and scientists have already proven adept at breeding and genetically modifying them.

JÖRG MEYER

Megan Sykes

"The true human self is already taught as self, and then our goal is to teach the body that the donor is another self. It turns out to be quite complicated to do that."

Dr. Sykes developed mice with humanized immune systems to investigate how human cells—rather than those from the mice themselves—reacted to pig transplants. She found that a perfect balance was needed between pig immune cells and the original human cells so they could coexist. Achieving this balance, first in mice, and then in large animal models, was a struggle, requiring new drugs to adequately suppress the recipient's immune system.

"The true human self is already taught as self, and then our goal is to teach the body that the donor is another self," says Dr. Sykes. "It turns out to be quite complicated to do that."

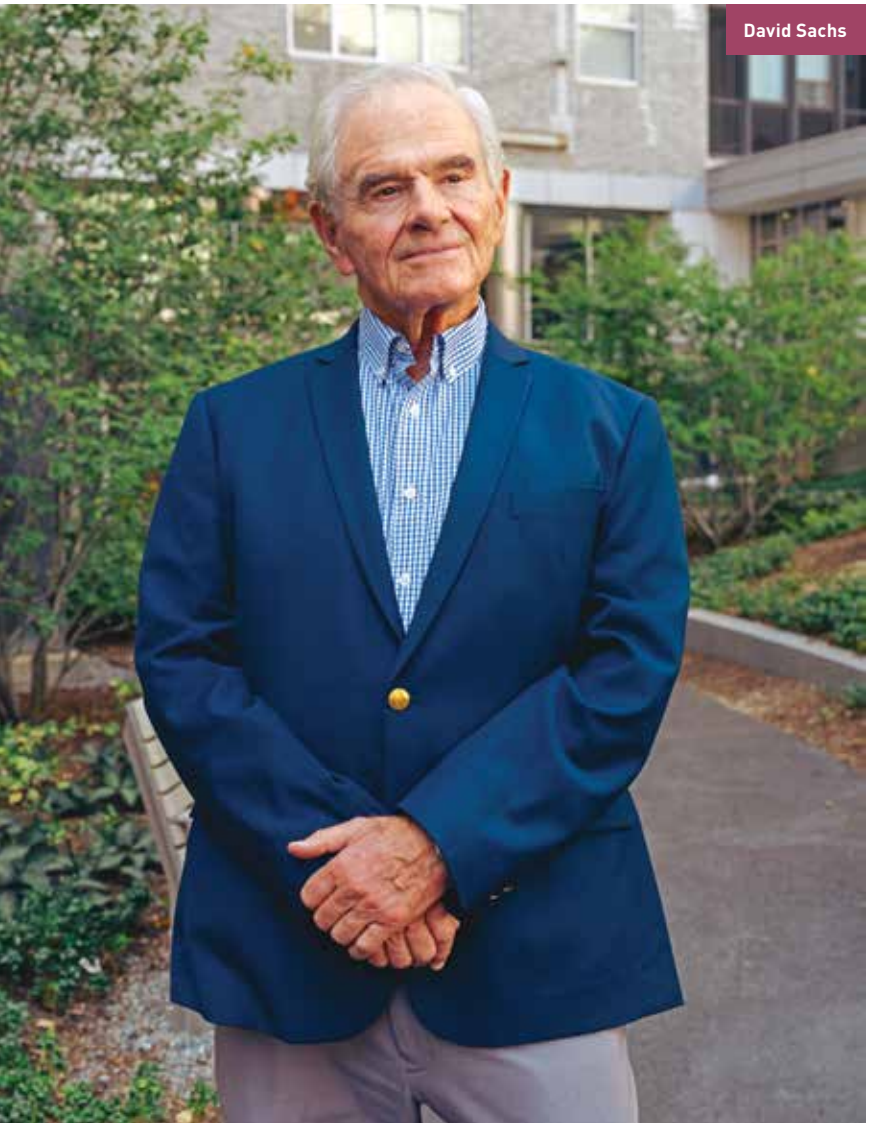
Extending Organ Lifespans

Over the last three decades, Drs. Sachs and Sykes have charted a methodical, painstaking course in their quest for xenogenic tolerance as they scaled up to transplanting whole pig organs into non-human primates.

Initially, the transplants were plagued by hyperacute rejection. As the scientists learned more, however, survival times stretched to hours, days, and even months.

Much of that extension was because of a new understanding of the immune system, tweaks to the scientists' protocols with thymuses and bone marrow, genetic modification of the pig, and new drugs to control the organ recipient's immune response.

Over the last few decades, Dr. Sachs has bred a line of pigs designed to provide organs to people. The pigs are smaller than traditional swine—only growing to 100 to 200 pounds rather than to more than 1,000 pounds, which makes them capable of yielding human-sized organs. The herd is genetically identical and engineered not to express alpha-gal, a sugar known to trigger some of the most severe immune reactions in humans.



David Sachs

LUCY LU

The new pig organs, coupled with the group's findings on how to induce tolerance, have brought human xenotransplantation one step closer to reality. Building on this work, transplant surgeon Greg Nowak, MD, PhD, adopted the xenotransplantation model of transplanting pig thymuses and kidneys, so-called thymokidney grafts, into baboons.

"The main barrier to improving long-term xenokidney survival is early post-transplant proteinuria," explains Dr. Nowak. "In our studies testing different kidney xenotransplantation models, we observed that baboons receiving thymokidneys did not develop proteinuria."

While the mechanism behind this resistance to protein leakage is still under investigation, findings from Dr. Nowak's lab have already laid the groundwork for an FDA-approved clinical trial.

Pigs and People

Pediatric heart surgeon Andrew Goldstone, MD, PhD, says one of the hardest parts of his job is waiting for organs. His patients are often newborns or infants born with severe heart defects. The only way to treat them is to provide them with a new heart.

"Thankfully, we don't see many deaths among the healthy pediatric population," he says. "But that means there are very few donors for our kids who need new hearts."

Some of the children he sees must wait six months or more—hooked up to a mechanical heart device in the hospital—before they receive a heart. Others die while waiting. These patients need a new source of child-sized hearts, which is precisely what Dr. Sachs' miniature swine can provide. That is why Dr. Goldstone started collaborating with the CCTI to study the potential of transplanting pig hearts.

"In the early days, it might be that a pig heart can act as a bridge while someone waits for a human heart," he says. "And if it provides a child with a new, working heart—even temporarily—it could completely change that child's life."

Before that can happen, though, Dr. Goldstone and his colleagues must be sure that the pig heart will be accepted by the child's immune system. Early experiments have shown that far higher levels of immunosuppressants are needed to allow humans

to accept pig organs than to accept human organs. A handful of patients around the world have now received pig kidneys, and most have lived only a few months due to a variety of complications.

"People are starting to see that these levels of immunosuppression are probably unsustainable," says Dr. Sykes. "So I feel that our work on tolerance all these years is now being vindicated."

The earliest pig organ transplants, like those that have already happened at other institutions, will likely rely on high levels of immunosuppression, Drs. Sykes and Goldstone say. With the Nowak lab at Columbia, Dr. Goldstone has successfully transplanted pig hearts into small baboons. Now, he's investigating what happens as those baboons and pig hearts continue to grow.

Drs. Sachs and Sykes and their colleagues are continuing to make genetic alterations in their swine to decrease the differences from humans that cause rejection. Transplanting pig organs into people with long-term success will likely require more than just genetic changes and better immunosuppression. Bone marrow or thymus transplants—or some other method of inducing immune tolerance, and therefore requiring fewer immunosuppressant drugs—are suspected to be the eventual path forward.

"This is the Holy Grail of transplant medicine and research," says Dr. Goldstone. "If you can do a transplant without immunosuppression and without the risk of rejection, you've suddenly made transplantation a permanent cure."

Reaching Patients

In April 2024, surgeons at New York University (NYU) transplanted a genetically engineered pig kidney, as well as the animal's thymus, into a patient with both heart failure and kidney failure. Although the organs had come from a commercial biotech company, Columbia's team paid close attention to the surgery, and gave advice to the NYU team planning it. The method was based on what Columbia had already achieved in baboons.

The organ was removed 47 days later, and the patient remained on immunosuppressant drugs. Even though the patient died months after the transplant, the medical team considered many parts of the procedure valuable. Dr. Sykes' group examined T cells from the patient to help gauge how well the transplanted pig thymus worked, and how the patient's immune system was responding to the new organ.

"We think that this patient's newly transplanted pig thymus was functioning, which is very promising," says Dr. Sykes.

The Columbia xenotransplant team is now waiting for another approval from the FDA for the compassionate use of a thymokidney in patients.

But in the meantime, these efforts have provided a pathway to tolerance for those receiving donor human organs, like Nicholas, the kidney transplant recipient who has already been weaned off immunosuppressants. The PANORAMA trial is the second in which Drs. Sykes and Sachs and colleagues have used concomitant human bone marrow and kidney transplants. In the first, seven of 10 participants were fully taken off immunosuppressants. Initial results of that study were published in 2008 in the New England Journal of Medicine. The trial halted when a key drug used in the regimen became unavailable. It took a decade before a new company began to make it again.

"This is the Holy Grail of transplant medicine and research. If you can do a transplant without immunosuppression and without the risk of rejection, you've suddenly made transplantation a permanent cure."

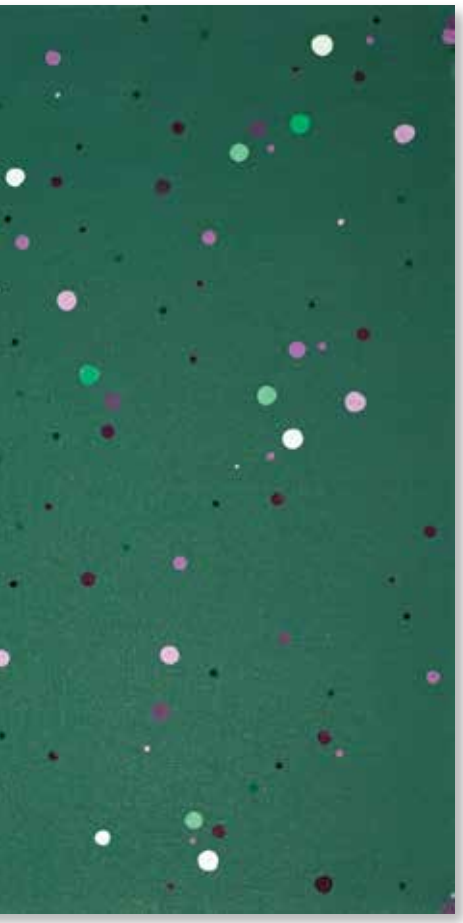
Now, the research has resumed as PANORAMA. So far, three of four patients receiving kidney transplants at Columbia were weaned off immunosuppressant drugs for part of their course. One remains completely off immunosuppression, and the other two are being maintained on low-level immunosuppression. There have been a few tweaks to exactly how the bone marrow transplant is carried out, compared to the studies that were performed a decade ago. With these changes, none of the patients have experienced a significant episode of the early kidney inflammation that was common in the first trial, but there has been an increased incidence of low-level antibody formation, the significance of which needs to be evaluated. Thus, the results are very encouraging, but there is still further work to be done before the new protocol will be widely available.

For Drs. Sykes and Sachs and their colleagues who have been working to improve transplants for more than 30 years, the results are extremely gratifying.

"This is a field in which you have to be willing to accept delayed gratification," says Dr. Sachs. "You can go for weeks or months without things working, and the high you get when it finally works has to make up for all those times." ❖

HOW TO TREAT A PATIENT LIKE A WORK OF ART

BY SHARON TREGASKIS



MEGHAN PEREZ'26
WHEN LANGUAGE FALTERS, 2025
ACRYLIC ON CANVAS
TRIPTYCH, EACH 12 IN. × 12 IN.

CONVEYING THE LIVED EXPERIENCE OF PAIN

AS STUDENTS USE ACRYLIC PAINTS TO DEPICT PAIN, AND PROVIDERS LISTEN TO PATIENTS AS THOUGH READING A NOVEL, **COLUMBIA CELEBRATES 25 YEARS OF NARRATIVE MEDICINE.**

"Medicine is my lawful wife, and literature my mistress,'" says obstetrician-gynecologist Christopher Travis'19, paraphrasing the Russian writer and physician Anton Chekhov. "'When I grow tired of the one, I go to bed with the other.'"

As an undergraduate at Columbia—majoring in English and completing the prerequisites he'd need to apply for medical school—Dr. Travis lived Chekhov's sentiment. "Boy howdy, if I didn't sometimes put away my chemistry textbook and pull out Shakespeare," he says. "I love them both, but one was nicer to me."

As his English literature studies progressed, however, a philosophical question plagued him. "As an undergraduate, I was an English major, but I struggled with the 'so what?'" says Dr. Travis. "Shakespeare is really cool, Milton's poems are amazing, but does it really matter?"

Then, in his senior year, he attended an information session on narrative medicine, a humanities-infused field founded at VP&S that invites health care providers to adopt habits common to literary analysis. By learning to acknowledge, absorb, interpret, and act on the stories of others, practitioners of narrative medicine seek to improve their relationships with patients, fellow healers and scientists, the public, and even themselves. In effect, narrative

medicine teaches its students to approach art with certain sensibilities—from intense focus to careful reflection—then bring those well-developed powers of attention to patients.

"Narrative medicine gets at the soul of what we're trying to do," says Dr. Travis, who went on to earn a master's in narrative medicine at Columbia—and another in medical physiology at Ohio's Case Western Reserve University—before enrolling as a medical student at VP&S in 2015. "Med school is really hard; you struggle, the hours are terrible—all the things," he says. "If you stay anchored to 'I'm doing this for patients,' even when studying for the USMLE Step exam, it keeps you grounded. Narrative medicine is very anti-burnout—it's a north star."

BIRTH OF A MOVEMENT

This year marks the 25th anniversary of Columbia's Program in Narrative Medicine, founded by general internist Rita Charon, MD, PhD, who introduced the phrase "narrative medicine" into the lexicon of medical education.

Now the Bernard Schoenberg Professor of Social Medicine, Dr. Charon traces the genesis of narrative medicine to her own arrival at Columbia in 1981 as a fellow in general medicine.

"I happened to be a very enthusiastic, lifelong reader," she says. "This was always what I did for pleasure and growth." Interested in formal study, she garnered the blessing of Steven Marcus, PhD, then Columbia's George Delacorte Professor in the Humanities, to enroll in a graduate seminar in comparative literature. That first class paved the way for a master's, and in 1999 she earned a PhD. Her dissertation explored intersubjectivity—the process of building shared meaning through communication and interaction—both in the works of 19th century American British author Henry James and in literary studies of medicine. "Every step of the way," she says, "my medical practice was transformed."

As her capacity to perceive details and their meaning in a literary work deepened throughout the 1980s and '90s, says Dr. Charon, so, too, did her powers of attention and empathy in patient encounters. In the 2001 JAMA essay in which she coined the phrase "narrative medicine," the physician reflected on her experience caring for a 33-year-old patient with Charcot-Marie-

"NARRATIVE MEDICINE AIMS TO HELP PROVIDERS BE MORE OBSERVANT, BETTER LISTENERS, **TO BE MORE TOLERANT OF AMBIGUITY** OR CIRCUMSTANCES THAT NEED FURTHER CLARIFICATION."

JAMES MCNEILL WHISTLER
SEA AND RAIN, 1865
OIL ON CANVAS
21 IN. × 29 IN.

EVOKING DISCUSSIONS ON THE RELATIONSHIP OF AN INDIVIDUAL TO THE UNIVERSE

Tooth disease, and the woman's report that her young son had begun displaying symptoms of the congenital nerve disorder. "The physician grieves along with the patient, aware anew of how disease changes everything," Dr. Charon wrote. "Sick people need physicians who can understand their diseases, treat their medical problems, and accompany them through their illnesses."

Today, scores of papers authored by Dr. Charon and her Columbia colleagues articulate the foundational principles and pedagogy of narrative medicine and delve into its application in clinical ethics, oncology, pediatrics, and interprofessional patient care. The 2016 textbook "Principles and Practice of Narrative Medicine," co-authored by Dr. Charon with Columbia colleagues Sayantani DasGupta, MD, MPH; Nellie Hermann, MFA; Craig Irvine, PhD; Eric R. Marcus, MD; Edgar Rivera Colón, PhD; Danielle Spencer, MS'12 (in narrative medicine)/PhD; and Maura Spiegel, PhD, was awarded the 2017 Perkins Book Prize and has since been translated into simplified Chinese, as well as French, Greek, Japanese, and Polish. "Narrative medicine is a practice whereby the practitioner—the clinician—is equipped with sophisticated skills derived from the study of texts or images: the skills of the close reader," she says.

In 2009, the University established the nation's first MS degree in narrative medicine, in the School of Professional Studies, with coursework on phenomenology; literary theory; the illness experience; the tools of close reading and writing; and narrative in fields like genetics, social justice advocacy, and palliative care.

In 2011, graduates of the program launched Intima: A Journal of Narrative Medicine. "The idea that people want to be seen and heard is consistent across the health care continuum," says journal co-founder Mario de la Cruz, MS'11, who is also a lecturer in the master's program and an associate director of Columbia University Irving Medical Center's (CUIMC's) Division of Narrative Medicine. "Narrative medicine aims to help providers be more observant, better listeners, to be more tolerant of ambiguity or circumstances that need further clarification; all of those skills directly impact the way that they can interact with their patients more effectively."

As founding chair, since 2018, of the Department of Medical Humanities and Ethics, which includes the Division of Narrative Medicine, Dr. Charon oversees a suite of programming for medical students, as well as offerings for students throughout CUIMC, established clinicians, and the general public. Columbia Commons Interprofessional Education, which Dr. Charon directs, brings together small groups of students and faculty from the clinical pastoral education program, College of Dental Medicine, Institute of Human Nutrition, Mailman School of Public Health, Physical and Occupational Therapy programs, Program in Genetic Counseling, and schools of Nursing and of Social Work to explore themes such as aging and end-of-life care, caregiving relationships, and health care justice. Literature at Work: The Robert Braham Seminar welcomes employees of CUIMC and NewYork-Presbyterian, as well as alumni of the Columbia professional health and narrative medicine programs, to a twice-a-month online graduate-level literature seminar that has discussed the short stories of Jorge Luis Borges,

RITA CHARON

JÖRG MEYER

Isabella Hammad, Nathaniel Hawthorne, Haruki Murakami, and others. Monthly online narrative rounds—open to anyone who registers and archived on the division's YouTube channel—have featured authors, journalists, novelists, activists, and thought leaders, each in conversation with a scholar affiliated with the division.

In narrative medicine, there is no right or wrong. Rather, the field cultivates practitioners' capacity for self-reflection and self-awareness and embraces the shared insights that emerge through discussion. "Narrative medicine very much values your affective response," explains Dr. Travis, who serves as assistant education director for narrative medicine in the Department of OB/GYN at University Hospitals/Case Western Reserve University. "It's not just about the structure of a poem. It asks: How does it feel in your ears? How does it feel in your mouth? How do all of these things make you respond?"

Such deep attention and self-knowledge can be critical to tolerating the ambiguity and ambivalence that patients and clinicians alike experience when working through difficult scenarios. "The habits of narrative medicine encourage openness, and I hope they help me accept patients as they are," says Dr. Travis. "It's being open to: What is the story going to do? What is the patient saying that I might not be expecting, and how am I reacting?" In his own practice, Dr. Travis has seen patients choose pregnancy despite harrowing odds

for their own survival, while others agonize over how treatment options for a severe gynecologic disorder might affect their sense of self. Building empathy with pregnant patients who don't achieve—or even prioritize—strict sobriety, yet make significant reductions to their typical alcohol or heroin use, can be particularly intense. "How do you take that situation and say, 'There's a lot I want you to do differently, and also I don't want to treat you like garbage—I love and accept you, and I have some ideas if you're interested?'"

FROM THE CLASSROOM TO THE EXAM ROOM

At VP&S, every first-year medical student chooses a half-semester seminar in narrative medicine. In groups of a dozen or fewer participants, they explore the philosophy and practice of aesthetic engagement as they delve into written works, photography, choreography, and music. Most of the seminars feature a practicum—students compose musical works, participate in theatrical improvisation, shoot photography, and workshop one another's poetry.

In Spring 2025, New Yorker magazine staff cartoonist Benjamin Schwartz'08—an assistant professor of medicine (in surgery) who uses comics and narrative strategies to develop more empathetic communications with patients, train future physicians, and support educators—led a workshop on the modes of storytelling exemplified in comic books. He introduced students to such storytelling fundamentals as clarity, pacing, and mood, and they tried their hand at figure drawing, perspective, and caricature.

Barbara Lock, MD, an assistant professor of emergency medicine, fiction writer, and essayist, invited students to produce short works of fiction. In Works of Art and Wide-Awakeness to the World, art historian Rika Burnham—previously head of education at the Frick Collection, museum educator at the Metropolitan Museum of Art, and project director at the School of the Art Institute of Chicago—convened students in art museums throughout New York City to engage in conversation about great works of art in public spaces.

> "BY TREATING SOMEONE AS THE EXPERT OF THEIR OWN SCENARIO, YOU CAN BECOME A BETTER PARTNER IN THEIR HEALTH CARE."

By design, few of the aesthetic works featured in the seminars engage directly with health and disease; it's the quality of the engagement—rather than the content of the art—that matters to this curriculum. "The simple way I explain the training is: 'You've gotta pay attention,'" says Dr. Charon. The same skills of scrutiny and reflection used by a sophisticated reader empower a clinician to engage more deeply with their patients' perspectives. "When a practitioner trained in narrative medicine listens to a patient talking about her illness, they are hearing things, registering things, that someone without this training is just not going to notice," she says. "It could be the words, the facial expression, the moment of silence, how one shifts in one's chair, something the daughter who came along to the appointment might pipe up and say."

As a first-year medical student, Dan Pacella'28 enrolled in a special narrative medicine project to collect the origin stories of the most cited papers produced by Columbia scientists over the last decade. Dr. Charon co-leads the course with Associate Dean for Student Research Anil Lalwani, MD, and Benjamin Mueller, a medical science reporter for The New York Times. "What better way is there than to learn from the experts how to translate complex information into accessible terms for the public?" says Mr. Pacella, who interviewed Nathalie Moise, MD, director of implementation science research for Columbia's Center for Behavioral Cardiovascular Health, about her 2022 report on the association between depression and heart disease among women for the journal Current Atherosclerosis Reports.

Mr. Pacella has already seen narrative medicine inform the mindset he brings to his work as a junior clinician with Columbia Student Medical Outreach (CoSMO). "I'm learning that the way someone describes their experience with illness is really the key to being able to serve them properly," he says. "By treating someone as the expert of their own scenario, you can become a better partner in their health care." He notes that he's learned to think more expansively about patient

STUDENTS IN RIKA BURNHAM'S PROGRAM, THE NARRATIVE EYE, VISITING THE MET IN SEPTEMBER

RIKA BURNHAM

insights, whether collecting a patient's personal medical history, or in pursuit of operational quality improvement. When CoSMO's social work team developed a survey to better understand patient needs, Mr. Pacella and his colleagues initially planned a quantitative approach—checkboxes or the like. Then they shifted gears. "We decided to make it open-ended so patients could respond in whatever way they would like; maybe we would get more meaningful information."

Meghan Perez'26 used her first-year narrative medicine seminar to get out of her comfort zone. Although she has no formal dance training, Ms. Perez registered for Movement as Story: An Exploration of Dance and the Spectrum of Physical Narrative, taught by a dancer who works with people experiencing movement disorders. For their final projects, each student choreographed and performed a one- to two-minute dance. "That was a lot," says Ms. Perez, "but I liked the idea of trying something new and making the most of the experience."

Now preparing to apply for residency in anesthesiology, Ms. Perez resumed her studies in narrative medicine for her scholarly project. A hobbyist painter and distance runner who had herself suffered a slow-to-heal hamstring injury, Ms. Perez is exploring the limitations of spoken language and whether visual arts might bridge gaps in how clinicians understand what their patients are trying to communicate about their pain. "My hypothesis is that language is insufficient to fully convey the lived experience of chronic pain," says Ms. Perez. She plans to observe patient-clinician encounters at NewYork-Presbyterian's Pain Management Center, conduct a literature review focused on the limitations of commonly used pain assessment tools, and interview a professional artist whose works explore the value of visual images to clinician-patient interactions and the communication of pain. Ms. Perez is also creating acrylic paintings based on her own pain experiences. "I think that art and visual representations might help providers understand how pain ebbs and flows and affects their patients' lived experience," Ms. Perez says.

AN ANCHOR AS TECHNOLOGIES ADVANCE

Judith Simmons, MD, founder of Lion Head Advisors, trained at VP&S as a fellow in gastroenterology in the late 1980s, then spent a decade on the faculty as an assistant clinical professor of medicine. She now works as a consultant, and her patients are health care systems, nonprofits, academic medical centers, and early-stage health care ventures. As COVID-19 accelerated the adoption of telemedicine, Dr. Simmons found herself returning to similar issues she had encountered earlier in her career when electronic health records were going mainstream. In 2022, she began taking graduate courses in narrative medicine, motivated to think more deeply and strategically about the role of technology in the doctor-patient relationship. "I was interested in how the patient encounter is changing and what might be important to retain," says Dr. Simmons.

As we adapt to new technology, she notes, it's easy to forget what's been lost. Through her narrative medicine training, Dr. Simmons delved into philosophy as a tool for understanding the meaning of the patient-clinician interaction, studied digital and immersive storytelling, and designed a chatbot. "Our needs as humans haven't changed that much," she says. "The discipline of narrative medicine helps us think about the impact of technology and identify aspects of care we must hold on to; it provides context for the questions: What is essential for better outcomes, satisfaction, and health for people, and how can we design tools to help deliver that?"

Like Dr. Simmons, Dr. Charon has seen health care transformed by technology and market forces, the reputation of mainstream medicine hanging in the balance. "We have to be careful not to be nostalgic about the old days," she says. "But there must continue to be ways to practice humble, affiliative partnership with patients, despite the inevitable topsy-turviness of the marketplace world."

Narrative medicine anchors practitioners in human connection—a stabilizer that could matter more now than ever. "What I owe to this person seeking my care is a capacity to perceive as clearly as I can their perspective, to know how to ask what they need, what they want. And I need to not only hear their answer, but be guided by their answer," says Dr. Charon. "These are the moral dimensions of the work." ❖

TINA YANG'23
CHIEF COMPLAINT, 2023
INK ON PAPER
11 IN. × 8.5 IN.

USING COMICS TO EXPLORE MORE EMPATHETIC COMMUNICATIONS WITH PATIENTS

Alumni News & notes

By Julia Hickey González, alumni editor

1962

Warren Johnson, a professor emeritus of medicine at Weill Cornell Medicine, has been awarded the institution's Joan and Sanford I. Weill Exemplary Achievement Award for a faculty member whose transformational work enhances health care worldwide. Dr. Johnson's first exposure to international health was during medical school at VP&S, when he worked at a mission hospital in Liberia. Dr. Johnson went on to champion global health during a 60-year career at Weill Cornell, in which he established research and training programs around the world, including in Brazil, Haiti, and Tanzania. He served the school as chief of the Division of International Medicine and Infectious Disease until he was named the founding director of the school's Center for Global Health in 2009.

1983

Donald W. Landry, formerly the Hamilton Southworth Professor of Medicine and director of the Center for Human Longevity at Columbia University Irving Medical Center (CUIMC), has been appointed interim president of the University of Florida, one of the country's largest public universities. A pioneering clinician, researcher, and administrator who has been a member of the Columbia community for over 45 years, Dr. Landry previously served as physician-in-chief at NewYork-Presbyterian/CUIMC. As chair of the Department of Medicine at VP&S, he significantly increased the number of faculty in the department and oversaw a 300% increase in National Institutes of Health (NIH)-funded research, raising the department's NIH ranking from 15th to the top five. Dr. Landry was the founding director of the Division of Experimental Therapeutics and started the sub-subspecialty of ICU nephrology while director of the Division of Nephrology. He is also the founding director of the Doris Duke Clinical Research Fellowship Program at VP&S and served on the admissions committee for VP&S for 31 years.

JÖRG MEYER

Donald W. Landry'83

1989

Laurence Huang received the 2025 University of California, San Francisco (UCSF), Academic Senate Distinction in Mentoring Award, which recognizes exceptional mentoring by faculty to other faculty or to fellows. Dr. Huang is a founding co-director of Faculty Mentoring and Sponsorship in the Division of Pulmonary, Critical Care, Allergy, and Sleep Medicine at UCSF. He also helped establish the UCSF Clinical and Translational Science Institute Mentor Development Program and has mentored more than 100 junior investigators over the past 30 years. Dr. Huang's passion for research and mentoring traces back to his formative years as a medical student working in the laboratory of Richard B. Robinson, MD. During his internal medicine residency at Columbia-Presbyterian Medical Center, his clinical practice, teaching philosophy, and mentoring style were informed by role models including Randolph Cole, MD, and Glenda Garvey, MD. Their influence guides his work at UCSF, where he remains committed to fostering the growth and development of the next generation of physician-scientist leaders.

Laurence Huang'89

Fadlo R. Khuri was inducted in 2025 as a fellow of the American Academy of Arts and Sciences in the specialty of Educational and Academic Leadership. As president of the American University of Beirut (AUB) since 2015, he has expanded academic tenure, increased financial assistance, diversified the student body, and raised the institution's global profile while guiding the university through difficulties presented by international conflicts and the pandemic. Dr. Khuri, a molecular oncologist, was born in Boston and brought up in Beirut, where he attended AUB before returning to the United States and earning his BA from Yale University. He was previously a faculty member at the University of Texas MD Anderson Cancer Center and served Emory University for 13 years in roles including the Roberto C. Goizueta Distinguished Chair for Cancer Research, professor and chair of the Department of Hematology and Medical Oncology, executive associate dean for research, and deputy director of the university's Winship Cancer Institute. His research has focused on the development of molecular, prognostic, therapeutic, and chemopreventive approaches to improve the standard of care for patients with lung and aerodigestive cancers. He is the current vice president of the Lebanese Academy of Sciences.

Fadlo R. Khuri'89

Chris Shibutani has joined biopharmaceutical company Bristol Myers Squibb (BMS) as executive vice president and chief strategy officer. Dr. Shibutani trained in anesthesiology and critical care medicine at Massachusetts General Hospital, practiced at Memorial Sloan Kettering Cancer Center, and

Send your alumni news:
vpsalumni@columbia.edu

earned an MBA from Columbia Business School in 1997. He spent over two decades on Wall Street as an equity research analyst and portfolio manager covering and investing in companies across the global pharmaceutical, biotechnology, and medical device industries. Before joining the leadership team at BMS, he

Chris Shibutani'89

was a managing director in the Global Investment Research division at Goldman Sachs.

1991

Yuka Manabe is director of the Center for Innovative Diagnostics for Infectious Diseases at Johns Hopkins Medicine, where since 2019, she has led efforts to improve global health by developing rapid diagnostic

Yuka Manabe'91

tests. In addition to developing tests for COVID-19, the center has played a role in creating point-of-care tests for gonorrhea, chlamydia, and syphilis, and participated in the clinical study for the first point-of-care diagnostic for molecular diagnosis of hepatitis C. Dr. Manabe completed her residency in internal medicine at Johns Hopkins Hospital and her fellowship in infectious diseases at its school of medicine before joining the Hopkins faculty in 1999. She lived in Uganda from 2007 to 2012, where a lack of diagnostic certainty and desire to prevent antimicrobial resistance led her to the field of diagnostic discovery. She also serves as the director of global health research and innovation at the Johns Hopkins Center for Global Health.

2001

Michelle McMacken, executive director of Nutrition and Lifestyle Medicine at NYC Health + Hospitals since 2022, was recognized as a 2025 Trailblazer in Healthcare by the City and State of New York for launching the municipal public health care system's first Lifestyle Medicine Program. A primary care internal medicine physician, fellow of the American College of Physicians, and diplomate of the American Board of Internal Medicine and American

Michelle McMacken'01

Board of Lifestyle Medicine, Dr. McMacken joined NYC Health + Hospitals in 2004, where she directed the Adult Weight Management Program at Bellevue for 16 years. The interdisciplinary Lifestyle Medicine Program, which includes medical providers, dietitians, and health coaches, provides individual counseling, group educational sessions, produce deliveries, and other services to patients with chronic conditions such as Type 2 diabetes and hypertension. The team also includes community health workers who help address food insecurity and other health-related social needs. The program's pilot phase demonstrated clinically and statistically significant improvements in cardiometabolic outcomes. She has recently overseen the program's expansion to seven sites in the health system, spanning all five New York City boroughs.

2010

D. Tyler Coyle, associate professor of psychiatry at the University of Colorado School of Medicine (CUSOM), has been appointed assistant dean of admissions for the medical school. Additionally, he has been appointed co-director of the Division of Addiction Science, Prevention, and Treatment within CUSOM's Department of Psychiatry. Dr. Coyle's work focuses on the treatment of opioid use disorder, as well as training medical students to manage substance use disorders through standardized patient encounters.

Robert Sorabella has been appointed the surgical director of pediatric heart transplant and mechanical circulatory support at Children's of Alabama. "Through a combination of acute mechanical support with extracorporeal membrane oxygenation, long-term ventricular assist devices for both single ventricle and biventricular circulations, and complex cardiac transplantation, we are able to provide superb, individualized care to the children of our state and beyond," he said in a news release announcing his appointment for the University of Ala-

Robert Sorabella'10

bama at Birmingham, where he is also an assistant professor of surgery. A graduate of Columbia College, Dr. Sorabella completed an integrated cardiothoracic surgery residency at NewYork-Presbyterian Hospital and a pediatric cardiac surgery fellowship at the University of Michigan. He is a dedicated surgeon-scientist investigating outcomes in congenital heart surgery, heart transplantation, and mechanical circulatory support.

2011

Sarah Russell, a primary care physician, has joined Nantucket Cottage Hospital. Dr. Russell grew up on Cape Cod and visited the island in her childhood. "I find it appealing to practice small-town medicine, with access to the resources that come with the relationship with a larger hospital network," she said in a statement. Before arriving on Nantucket, she worked at the Fortrea Clinical Research Unit and SSM Dean Health Medical Group in Madison, Wisconsin. Her career also includes an internal medicine primary care practice in Brattleboro, Vermont. She trained in internal medicine at Brown/Rhode Island Hospital.

ALUMNI PROFILE

MATT MILLER / WASHU MEDICINE

Dineo Khabele'94

The physician-scientist is driving progress in ovarian and gynecologic cancer research, while working to close gaps in access to women's health care.

By Carla Cantor

When Dineo Khabele'94 began her training in the mid-1990s, she was one of the few Black women in her medical school class. But she distinguished herself even more for the paths she chose: first into gynecologic oncology, a surgical field long dominated by men, and later into research, where women of color were, and remain, dramatically underrepresented.

The challenges didn't deter her. If anything, they compelled her.

"I've always been drawn to places where I could help solve hard problems," says Dr. Khabele, chair of the Department of Obstetrics and Gynecology at Washington University School of Medicine in St. Louis. When she decided to focus on ovarian cancer, patients with late-stage disease typically lived about a year. "We barely even used the word 'cancer' because the prognosis was so grim. There was a sense that little could be done," she says. "But I saw an opportunity to ask questions and to investigate new strategies to improve outcomes."

Today, Dr. Khabele is the Mitchell and Elaine Yanow Professor of Obstetrics and Gynecology and the first Black physician to head a clinical department at the medical school. She is nationally recognized for her contributions as a gynecologic oncologist, physician-scientist, and advocate for women's health and health equity. Her research is helping to unravel mechanisms of chemotherapy resistance in ovarian cancer and design new, targeted treatments.

The fundamental question driving Dr. Khabele's work is how to better predict which patients will respond to which therapies. "Under the microscope, cancers may look nearly identical, but they behave very differently," she says. "Being able to distinguish between them and understand which ones will respond to treatment is essential. I want to be able to intervene earlier and give patients the right therapy from the start. That's how we move from a one-size-fits-all approach to true precision care."

Cultural and Family Influences

Dr. Khabele's path to medicine began in southern Africa, shaped by a childhood enriched by diverse cultural influences and a strong family legacy of education, activism, and social justice. Born in Zambia to a South African father and an African American mother, she spent her early childhood in Lesotho, a small, mountainous country encircled by South Africa, where both parents taught at the national university.

Her father, a science educator who had previously worked for UNESCO, and her mother, a sociologist and former Peace Corps volunteer, fostered an intellectually rich, globally minded household. Dinner table conversations ranged from politics to public health, and their home brimmed with books, spirited debate, and a sense of purpose. "It was a very international, intellectual environment," she says.

In 1979, when she was in seventh grade, Dr. Khabele's father received a Fulbright appointment at Rutgers University, and her mother began graduate studies at the University of Chicago. She and her siblings stayed with their maternal grandparents in Austin, Texas, where she enrolled at St. Stephen's Episcopal School, a progressive boarding school her aunt had helped integrate years earlier.

"We were dropped off, and I never left," Dr. Khabele says with a laugh, referring to her new start in the United States. Her parents later returned to South Africa following Nelson Mandela's release from prison in 1990, when her father, who had been forced into exile during the apartheid era, accepted a position with the new post-apartheid government.

At St. Stephen's, Dr. Khabele immersed herself in literature, writing her senior thesis on South African journalist and novelist Peter Abrahams, whose work illuminated the injustices of apartheid. She also found inspiration in authors like Toni Morrison and Alice Walker, whose portrayals of Black women resonated deeply.

The strength and resolve she admired in those writers' voices mirrored qualities she had long seen in the women who raised her. Her mother and grandmother were formidable role models, their paths shaped by activism, leadership, and service. Her grandmother, Bertha Sadler Means, was a pioneering educator and civic leader in Austin. A former teacher and school administrator, she became CEO of a local cab company and continued working until the age of 90. She died in 2021, two months shy of her 101st birthday.

Dr. Khabele's mother, Joan Means Khabele, left a powerful mark on Austin's civil rights history. At age 15, she had defied segregation laws by diving into the whites-only Barton Springs Pool—an act of protest that helped spark a series of "swim-ins" and ultimately led to the pool's desegregation. In 2024, the city renamed the Barton Springs Bathhouse in her honor.

Columbia Years

Dr. Khabele arrived at Columbia College in 1985, intending to study English or politics. Several of her advisers at St. Stephen's had attended Columbia or Barnard, and she applied early decision.

COURTESY OF DINEO KHABELE

Dr. Khabele at graduation from medical school in 1994

On campus, she joined the National Black Women's Health Project and volunteered with Columbia Student Health, offering peer counseling to students being treated for sexually transmitted infections. The AIDS epidemic, then surging in New York City, left a deep impression. "We saw people dying alone in hospital rooms," she says. "It was devastating, and the urgency of the moment solidified my decision to pursue medicine."

She completed her premed requirements alongside her political science major and took a year off before medical school to continue her work at Columbia Student Health. At VP&S, she found guidance and support from faculty mentors like Hilda Hutcherson, MD, Columbia's first Black woman in the obstetrics and gynecology residency program and an early champion of diversity in medicine.

"Even as a first-year student, Dineo carried herself with calm confidence," Dr. Hutcherson recalls. "Many students I advised wrestled with self-doubt, especially in an environment where their presence was sometimes questioned. But Dineo knew she belonged."

What first drew Dr. Khabele to OB/GYN was its connection to community health. During clinical rotations, the choice became more personal. "I saw surgical residents who looked like me," she said. "And I thought, maybe I could do that."

Dr. Hutcherson was especially pleased when Dr. Khabele pursued a specialty that includes surgical training. "Back then—and even now—people would say that women didn't belong in surgical fields," she says. "I wanted women to know they could do surgery, they could do OB/GYN, and they could succeed."

After completing her residency at NewYork-Presbyterian/Weill Cornell Medical Center, Dr. Khabele began a fellowship in gynecologic oncology at Albert Einstein College of Medicine. It was the era of the Human Genome Project, launched in 1990 with the ambitious goal of sequencing the entire human genome. Drawn in by the momentum of genomic science, she joined a lab focused on tumor gene expression.

She went on to serve on the faculty at Meharry Medical College and later moved to Vanderbilt University, where she directed gynecologic oncology translational research. In 2017, she joined the University of Kansas School of Medicine, continuing her research investigating chemotherapy resistance in ovarian cancer, an inquiry that continues to shape her work today.

From Silence to Strategy

Ovarian cancer remains the most lethal gynecologic malignancy, largely because it is typically diagnosed at advanced stages. An estimated 60% to 70% of cases are found after the disease has progressed, when symptoms—often vague or easily overlooked—have gone unrecognized. According to the American Cancer Society, in 2025 an estimated 20,890 women in the United States will be diagnosed, and more than half will die from the disease.

Still, there has been progress. Advances in genetic testing, expanded treatment options, and prevention strategies have

improved survival. "Now, we have patients living more than 10 years, even with stage 3 or 4 disease," says Dr. Khabele. "We've come a long way. The changes are incremental but meaningful."

Improving outcomes for patients is at the core of Dr. Khabele's research. Her lab is exploring how to manipulate gene expression, especially BRCA1, a gene whose mutations are paradoxically linked to both increased ovarian cancer risk and better chemotherapy response. She has studied how to make BRCA-negative tumors behave more like BRCA-positive ones and investigated drug combinations, including histone deacetylase inhibitors and PARP inhibitors, to improve outcomes in chemotherapy-resistant ovarian cancers. Her team is also studying immunotherapy—treatments that harness the body's immune system to fight cancer—which she believes holds promise for gynecologic malignancies.

Understanding why some cancers don't respond to treatment is critical, she says; about 80% of ovarian cancers are sensitive to initial chemotherapy, while 20% are not. "That's where the science needs to go—toward unraveling what makes those cancers different."

MATT MILLER / WASHU MEDICINE

Dr. Khabele with research technician Wendy Zhang

Risk-Reducing Strategies

Prevention is also a key element in her broader efforts to reduce mortality from gynecologic cancer. With no reliable early detection tools for ovarian cancer, reducing risk is essential.

One promising approach is opportunistic salpingectomy—the removal of fallopian tubes during unrelated pelvic surgeries—a strategy based on evidence that many high-grade serous ovarian cancers originate in the tubes. Other risk-reduction efforts include genetic testing for BRCA1 and BRCA2 mutations, which helps identify high-risk individuals, and wider use of oral contraceptives, which are linked to lower ovarian cancer risk.

She is also addressing the growing challenge of endometrial cancer, which is rising in both incidence and mortality. The increase is particularly concerning in younger women and in Black women, who face a disproportionate burden from the disease. "We're seeing more cases in younger patients, and too often symptoms are misattributed or overlooked," she says. "That can lead to delayed diagnoses and worse outcomes."

Equity in Action

For Dr. Khabele, improving outcomes goes hand in hand with advancing equity. At WashU, she has supported clinics for pregnant women with substance use disorders, partnered with church leaders to deliver mobile health services such as mammograms and blood pressure screenings, and launched initiatives to support clinician well-being.

"She likes to say, 'We have to do hard better,'" says Jeannie Kelly'09, division chief for Maternal-Fetal Medicine at WashU Medicine. "She leads with clarity and compassion. One of the reasons I took on a leadership role myself is because I trust her completely."

That leadership was evident from the start. Dr. Khabele took on her role in 2020 amid the COVID-19 pandemic, in a city still grappling with the protests against police violence in its suburb of Ferguson and an ongoing national reckoning on racial justice. She arrived with a message of transparency and action—issuing a departmental statement on racism that underscored the medical field's historical harms and her commitment to equity. She later created an Office of Professional Development and Wellness, bringing in coaches and thought leaders to promote clinician well-being and purpose. "She doesn't shy away from hard conversations," says Dr. Kelly. "She goes straight into the fire and brings people with her—not by force, but by conviction."

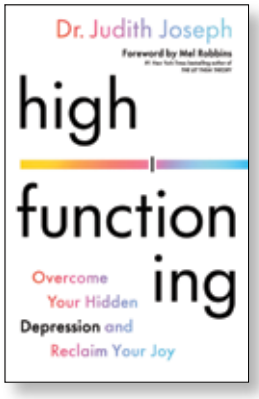
Clinician, Scientist, Educator

Dr. Khabele views leadership, patient care, and scientific discovery as inseparable parts of her calling. Despite the demands of her administrative role, she still sees patients, runs a lab, and teaches on rounds. "It's the integration of these roles that makes each one better," she says.

She believes physician-scientists play a critical part in advancing medicine by translating discoveries into care, and care back into discovery. "Every time I remove a tumor in the OR, I think about how that sample might help us understand something new," she says. "Every time I sit with a patient facing a recurrence, I think about how we can do better."

Dr. Khabele is candid about the stress and uncertainty facing academic medicine—especially in a political climate that threatens federal research budgets. Still, she remains undeterred. "Every era has its challenges," she says. "During the AIDS crisis, people asked, 'Why would you go into medicine now?' When HMOs came in, they said it was the worst time to be a doctor. There's never a perfect time. You just do the work—until the winds change."

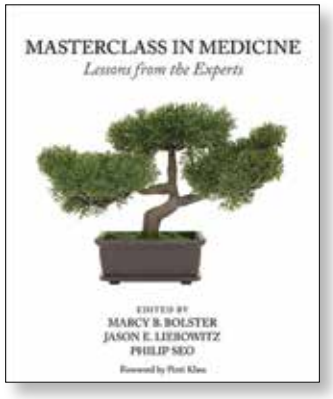
alumni *in print*



High Functioning: Overcome Your Hidden Depression and Reclaim Your Joy

Judith Joseph'07
Little, Brown Spark, 2025

Dr. Joseph, a psychiatrist and chair of the VP&S Alumni Association's Women in Medicine Collaborative, draws on original research, clinical case studies, and her own experiences to shed light on a lesser-known form of depression that hides behind productivity and success. In her first book, Dr. Joseph helps readers recognize the subtle signs of high-functioning depression (HFD), such as persistent fatigue, anhedonia (the inability to feel pleasure), guilt, and difficulty concentrating. "People with high-functioning depression will have the symptoms of depression, but they're not low-functioning. In fact, they cope by over-functioning, and they don't acknowledge having significant distress," she told the LA Times. The book, which is based on the first peer-reviewed study on HFD, offers five practical tools to foster more joy and well-being. By following her five V's—validation, venting, values, vision, and vitals—readers can wake up happier, find more satisfaction in their relationships, and feel better in the present while looking forward to the future. Accessible and empathetic, "High Functioning" has appeared on the USA Today and Publishers Weekly bestseller lists.



Masterclass in Medicine: Lessons From the Experts

Philip Seo'97, co-editor
CRC Press, Taylor & Francis, 2024

This anthology, edited by Dr. Seo, associate professor of medicine at Johns Hopkins University School of Medicine, in collaboration with Jason Liebowitz, MD, assistant professor of medicine in the Division of Rheumatology and Clinical Immunology at VP&S, and Marcy Bolster, MD (Harvard Medical School), brings together 25 essays from leading clinicians around the world. Contributors reflect on themes such as clinical reasoning, ingenuity, mentorship, humility, empathy, and the art of saying goodbye. According to the publisher, the volume serves as an ideal primer for students exploring the foundations of clinical medicine and the process of becoming a thoughtful, skilled physician. Highlights include a chapter on deep listening to patients by Rita Charon, MD, PhD, founder of Columbia's Program in Narrative Medicine at VP&S. (See "How to Treat a Patient Like a Work of Art" on page 30.) The collection offers a broad yet contemplative perspective on what it means to practice medicine with both expertise and humanity.

For Medicine, Memoriam

Robert Basner'83
Spuyten Duyvil Press, 2025

Dr. Basner, an emeritus professor of medicine at VP&S and internationally recognized pulmonologist, has turned to poetry in his debut collection, which brings together elegiac poems that confront mortality, illness, and the limits of healing. His medical career has included pioneering research on sleep, breathing, and ALS. He also holds a bachelor's degree in music composition and conducting from the City College of New York, a background that shapes the rhythm of his verse. "This is an adventurous first book of poems by a senior physician who has encountered a wide variety of memorial events," writes Michael Salcman, MD, retired neurosurgeon and art critic. Themes range from the Holocaust and its enduring grief to the intimate losses of friends, patients, and colleagues. While Dr. Basner writes as a physician, these are not clinical poems; rather, they emerge from a lifetime spent close to suffering and death. His work is also grounded in Jewish cultural memory, recalling his upbringing in the Catskills and honoring the art and music of victims of the Shoah. "My poetry is the plaint and burden of the Jewish physician-clinician, educator, researcher, and author—particularly privileged and devastated by devastating illness of cardiorespiratory failure, and the unimaginable suffering of those with amyotrophic lateral sclerosis," he told the literary organization Yetzirah.

Send books published within the past two years to:
vpsalumni@columbia.edu

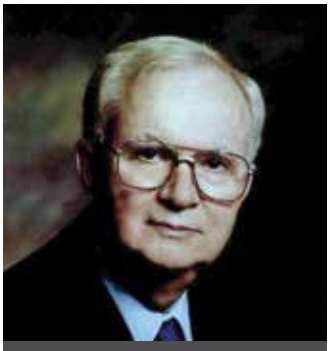
in memoriam

FACULTY

Peter Grabham, assistant professor of radiation oncology (in the Center for Radiological Research), died Jan.15, 2025.

Bruce Dohrenwend, professor emeritus of social psychiatry (in epidemiology) and special lecturer in the Department of Psychiatry, died Feb. 4, 2025.

Karl H. Perzin, professor emeritus of pathology and cell biology, died Feb. 7, 2025. See Alumni In Memoriam (Class of 1958).



Karl H. Perzin'58

Peter Preko, associate research scientist in the International Center for AIDS Care and Treatment Programs, died Feb. 21, 2025.

Alexander Kratz, professor of pathology and cell biology, died in February 2025.

Alexander Kratz

Charles Marboe, professor emeritus of pathology and cell biology and special lecturer, died Aug. 4, 2025.

Charles Marboe

Barry Wolinsky, assistant clinical professor of dental medicine, died Sept. 1, 2025.

ALUMNI

1947

Pearl Stewart Pitt, a pediatrician dedicated to advancing health initiatives for women and children, died July 31, 2025. She was 104. Dr. Pitt graduated Phi Beta Kappa from Tufts University. She later served as a physician at Bryn Mawr College and concluded her career as director of maternal and child health for the City of Philadelphia. An avid traveler and reader, she also enjoyed sewing, tennis, and swimming, and she took great pleasure in her "grandpups." Dr. Pitt is predeceased by her husband, Leldon Pitt'45, and a son. She is survived by a daughter and many nieces and nephews.

1950

Warren Glaser, an internist and longtime faculty member at the University of Rochester, died March 16, 2025. He was 96. Born in Brooklyn, he graduated from Columbia College and served in the U.S. Navy as a battalion surgeon with the U.S. Marine Corps during the Korean War—retiring from military service as a commander in 1975. He was a staff medical officer at the Naval Hospital in Bethesda, trained at the Veterans Hospital in Brooklyn, and held faculty positions at SUNY Downstate before joining the University of Rochester in 1973. He served as professor of medicine there until 1996. Although his most cherished role was as a house staff group attending physician at Strong Memorial Hospital, he also maintained a private practice and held leadership positions in the Rochester Academy of Medicine and Monroe County Medical Society. In retirement, he volunteered for 17 years as a physician for uninsured and homeless individuals at St. Joseph's Neighborhood Center. He enjoyed reading, traveling, rowing, and maintaining hiking trails in Perinton, New York. He is survived by his wife, June, one child, and one grandchild. He was predeceased by one daughter.

1951

Richard "Dick" S. Banfield Jr., an obstetrician and gynecologist and pioneer in family-centered maternity care, died April 25, 2025. He was 101. Born in Minnesota, he attended Amherst College, interrupting his studies to serve as a second lieutenant in the U.S. Army Air Corps during World War II. He completed residency training at Columbia and Yale. In 1957, he opened a private practice in Stamford, Connecticut, where he served patients until his retirement in 1992 as chief of obstetrics at Stamford Hospital. Dr. Banfield was an early advocate for the demedicalization of childbirth and for breastfeeding. He helped make it possible for fathers to be present in delivery rooms and prioritized the integration of midwives into private practice. He enjoyed golf, racquetball, bridge, theater, and travel. Dr. Banfield loved bringing people together, organizing an annual luncheon with fellow graduates of the Class of 1951 at the New Leaf Cafe in Fort Tryon Park. He was predeceased by his wife, Joan, and is survived by four children, five grandchildren, one step-grandchild, and two great-grandchildren.

Richard S. Banfield Jr.'51

Emanuel "Mannie" A. Friedman, an obstetrician and gynecologist known for describing the "Friedman curve" of labor progression, died Feb. 13, 2025. He was 98. A Brooklyn native, he attended Brooklyn College and served in the U.S. Navy during World War II. He completed his internship at Bellevue Hospital and residency at Columbia—where he served as chief resident before joining the full-time faculty and earning a Doctor of Medical Science for

Emanuel A. Friedman'51

his research in uterine physiology, human labor, and biostatistics. The Friedman curve, which remains in use around the world, was born the same night as his first child: June 11, 1952. On call at Columbia when his wife went into labor, Dr. Friedman was denied his request to attend the birth at another hospital. Instead, he took pencil to paper to record serial examinations in graphic form of the frequency of contraction, cervical dilation and effacement, and fetal descent in his patients. He later held a faculty position at Chicago Medical School before joining Harvard Medical School, where he chaired the Department of Obstetrics and Gynecology at Beth Israel Hospital and remained as a professor and chair emeritus for the rest of his life. At Harvard, he expanded residency training and prioritized the recruitment of women and underrepresented physicians. Over a 70-year career, he published more than 500 articles and 50 books, consulted for the National Institutes of Health (NIH) and Food and Drug Administration, and was named a "Giant in OB/GYN" in 2020 by the Perinatal Research Branch of the NIH. He was an avid opera enthusiast and world traveler who enjoyed painting. Dr. Friedman is predeceased by his wife, Judy, and survived by two children, six grandchildren, and eight great-grandchildren.

1952

Robert "Bob" Silbert, a psychiatrist and psychoanalyst in New York City, died Feb. 15, 2025. He was 97. Born in Brooklyn, he graduated as valedictorian of Columbia College in 1948. He served as a first lieutenant and physician in the U.S. Army, stationed in France from 1953 to 1955. He trained at the Columbia Psychoanalytic Institute from 1962 to 1966. He was on the faculty at VP&S from 1959 to 1980, and at Cornell from 1984 to 2003. Dr. Silbert maintained a

Robert Silbert'52

long-standing private psychiatry and psychoanalysis practice in Manhattan. He enjoyed literature, the arts, and travel. He was predeceased by his wife, Phyllis, and first wife, Betty. He is survived by two children, one stepchild, and seven grandchildren.

1955

Marilyn Heins, a pediatrician, parenting educator, and author, died March 10, 2025. She was 94. Born in Boston, she graduated from Radcliffe College. She completed her internship at the

Marilyn Heins'55

New York Hospital and a pediatrics residency at Babies Hospital in New York. A fellow of the American Academy of Pediatrics, Dr. Heins was the first woman to hold senior academic leadership positions at multiple institutions, including as department head at Detroit Receiving Hospital, vice dean at the University of Arizona College of Medicine, and associate dean at the Wayne State University School of Medicine. Nationally, she served on the editorial board of JAMA and the National Board of Medical Examiners, and chaired the Association of American Medical Colleges' Group on Student Affairs. A longtime advocate for parents, she wrote books and a popular weekly parenting column for the Arizona Daily Star, and founded the website ParentKidsRight.com. She was a member of the Veteran Feminists of America. She enjoyed reading, opera, chamber music, and world travel. She was predeceased by her husband, Milton Lipson, and is survived by her companion, Milton Francis, two children, two stepchildren, six grandchildren, and three step-great-grandchildren.

Donald Marcus, a physician-scientist and expert in rheumatology and immunology, died Oct. 10, 2024. He was 93. A Princeton graduate, he trained

Donald Marcus'55

in internal medicine at VP&S and served in the U.S. Army Medical Corps at Walter Reed Army Medical Center. He later completed a postdoctoral fellowship in immunochemistry at Columbia in the laboratory of Elvin Kabat, PhD. Dr. Marcus joined the faculty at Albert Einstein College of Medicine in 1963, where he became professor of medicine and immunology and director of the Division of Rheumatology. In 1980, he joined Baylor College of Medicine, developing its rheumatology training program and contributing over 120 research publications across immunology, biochemistry, and cell biology. In a reunion questionnaire, he described his greatest medical achievements as "establishing the immunochemical basis of several human blood group antigens" and "developing immunological methods and antisera for the study of glycolipid antigens." Named a Master of the American College of Rheumatology, in later years he became a prominent critic of pseudoscience and published widely on the risks of alternative medicine. Dr. Marcus was a sports fan; avid traveler; and lover of music, theater, and Native American art. He is predeceased by his wife, Marianne, and survived by three children, four grandchildren, and two great-grandchildren.

1957

John "Jack" Joseph Sciarra, an obstetrician and gynecologist, died July 6, 2025. He was 93. A native of West Haven, Connecticut, Dr. Sciarra graduated magna cum laude from Yale, where he would later complete his medical internship. He followed with residency at Columbia, where he also earned a PhD in anatomy in 1963. He became chair of obstetrics and gynecology at the University of Minnesota before being appointed as the Thomas J. Watkins Professor and Chair of Obstetrics and Gynecology at Northwestern University Medical School and Northwestern Memorial Hospital, positions

in memoriam

John Joseph Sciarra'57

he held for 28 years. Dr. Sciarra published more than 250 peer-reviewed papers and was author or editor of 18 books. He served as editor-in-chief of the International Journal of Gynecology and Obstetrics for over two decades. He also served as president of the International Federation of Gynecology and Obstetrics (FIGO) from 1991 to 1994, representing physicians from more than 100 countries. In 1992, he was inducted as an honorary fellow of Great Britain's Royal College of Obstetricians and Gynaecologists. Traveling well into his 80s, he worked with People to People programs to lead delegations of physicians to China, Russia, Vietnam, Cambodia, and Mongolia to advance women's reproductive health, prevent cervical cancer, and "elevate their status in society," he wrote in alumni files. He enjoyed traveling with his family, particularly to London, Italy, and Cape Cod. He is survived by his wife, Barbara, three children, and nine grandchildren.

1958

Karl H. Perzin, a pathologist and longtime faculty member at Columbia, died Feb. 7, 2025. He was 91. Born in Jersey City, he attended Columbia College and served as a medical officer in the U.S. Public Health Service before joining Columbia's Department of Pathology as a resident in 1961. He rose to the rank of professor of pathology and cell biology and would serve the institution for six decades—continuing to teach as professor emeritus after 1998. For over 35 years, he lectured in the second-year pathology course. Several awards bear his name, including the Dr. Karl Perzin Excellence in Pathology Award for outstanding medical students and the Dr. Karl Perzin Award for Excellence in Anatomic Pathology Teaching given to faculty members by residents and fellows. His research and scholarly work advanced the knowledge and diagnosis of surgical pathology; he published over 50 papers in peer-reviewed journals. The AFIP Fascicle on Tumors of the Intestines, which he co-wrote and published in 1990, and his 1993 study on the premalignant significance of benign proliferative breast diseases remain important contributions to the field. Dr. Perzin was awarded the College of Physicians and Surgeons Distinguished Service Award in Basic Science in 2016, presented at the medical school's graduation ceremony. He was an avid supporter of the arts, particularly the Metropolitan Opera and New York Philharmonic.

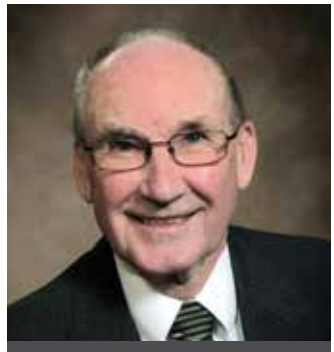
1959

William Parnelle Burks, a general surgeon, died Jan. 28, 2025. He was 91. Born in Elizabeth, New Jersey, he graduated from Princeton University and completed his surgical training at St. Luke's Hospital in New York City, where he served as chief resident. He served as a captain in the U.S. Army Medical Corps, including a year as a trauma surgeon in a mobile army surgical hospital in Vietnam. Dr. Burks joined Princeton Surgical Associates in 1966 and became chief of general surgery at the Medical Center of Princeton. A fellow of the American College of Surgeons, he was recognized for his expertise in arterial vascular surgery and compassionate care. He served for decades on the boards of the Princeton Area Community Foundation, Princeton Medical Center Foundation, and Princeton Day School, and was honored for his philanthropic leadership. His love of athletics led him to tennis club championships and golf adventures with family and friends. He was predeceased by his wife of 66 years, Judith, and is survived by four children, 13 grandchildren, and three great-grandchildren.

Malcolm Shepherd "Cal" Edgar Jr., an orthopedic surgeon, died Nov. 1, 2024. He was 91. Born in San Francisco, he graduated from Princeton University and completed his orthopedic residency at the National Orthopedic and Rehabilitation Hospital in Arlington, Virginia. He was a founding member of the Norwich Orthopedic Group. He was affiliated with the William W. Backus Hospital from 1967 to 1998 and the Norwich State Hospital from 1974 to 1998, during which he was also director of the William W. Backus Hospital's Amputee Clinic. He was also medical director of Easterseals of Southeastern Connecticut from 1987 to 1998. Beyond medicine, Dr. Edgar was active in the Norwich Historical Society and pursued a lifelong love of sailing and boating. He also enjoyed rowing, traveling, and the companionship of his St. Bernards and Bernese mountain dogs. He was predeceased by his wife, Mary. He is survived by three children, six grandchildren, and five great-grandchildren.

1960

Theodore "Ted" P. Roman, a cardiovascular surgeon who dedicated his career to serving Native American communities, died Jan. 26, 2025. He was 90. Born in Wheaton, Minnesota, he attended a one-room schoolhouse and graduated from Dakota Wesleyan University. He completed a surgical internship at Columbia-Presbyterian and began his career with the U.S. Indian Health Service at the Rosebud Sioux Reservation in South Dakota. He later completed residencies in general surgery at the Mayo Clinic and cardiovascular surgery at the University of Iowa. In 1978, Dr. Roman founded Siouxland Cardiovascular Surgeons and established the first open-heart surgery program in northwest Iowa. In alumni office records, he cited his greatest achievements as "starting a cardiac surgical service in a community where a similar service has never been



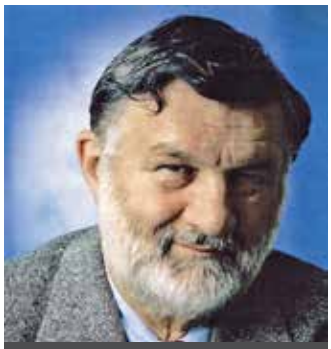
Theodore P. Roman'60

offered before" and providing "excellence of care to individual patients on a daily basis." In 1999, he retired to care for his wife, Helen, who predeceased him. He would later return to serve the U.S. Department of Indian Health Services with the Cheyenne River Sioux Tribe. He maintained a strong Christian faith and cherished the Lakota values of generosity, wisdom, bravery, and kinship. He loved bird-watching, farming cattle, riding horses, and hiking in the Black Hills. He is survived by three children and several grandchildren and great-grandchildren.

1961

Leonard Katz, a gastroenterologist, educator, and leader in medical and Jewish community life, died Feb. 6, 2025. He was 89. Born in New York, he graduated from Yale and completed his residency and a gastroenterology fellowship at Bronx Municipal Hospital, serving as a captain in the U.S. Air Force during that time. In 1968, Dr. Katz joined the University at Buffalo as associate dean of the medical school, where he established the gastroenterology program and helped shape medical education for more than a decade. He would later contribute as professor emeritus and adjunct teacher in social and preventive medicine. He was editor-in-chief of HMO Practice. He helped bring the Gold Humanism Honor Society to Buffalo and founded the Emeritus Medical Faculty Society of Gastroenterology. Dr. Katz was an advocate for Jewish life and Holocaust education in western New York, and he held numerous leadership roles in synagogues and community organizations. He enjoyed tennis. Dr. Katz is survived by his wife, Judith, three children, eight grandchildren, and seven great-grandchildren.

Thomas Mack, an epidemiologist and global public health leader, died June 22, 2025. He was 89. Born in Reno, Nevada, he earned a scholarship to Carleton College at age 16. He joined the Centers for Disease Control and Prevention's Epidemic Intelligence Service, where his studies of smallpox transmission in East Pakistan helped shape global eradication strategies. He earned an MPH in 1968 from the Harvard School of Public Health, where he went on to hold academic appointments. He joined the Keck School of Medicine at the University of Southern California (USC) and taught for 47



Thomas Mack'61

years in its Department of Population and Public Health Sciences. He founded the USC Cancer Surveillance Program, the California Twin Program, and the International Twin Study as a basis for impactful studies into causes of breast cancer, malignant melanoma, Hodgkin lymphoma, pancreatic cancer, multiple sclerosis, and other chronic diseases. He served as longtime chair of California's Carcinogen Identification Committee under Proposition 65, reappointed by all successive governors until he retired from the position in 2022. In 2004, he published "Cancers in the Urban Environment." He was a polyglot and traveler passionate about photography, art, music, nature, and global cuisine—which he sought out in every corner of his beloved Los Angeles. He is predeceased by his first wife, Brita, and a son. He is survived by his wife, Wendy, two daughters, two stepdaughters, three grandchildren, and two step-grandchildren.

Stephen "Steve" Terry, an obstetrician and gynecologist, died Feb. 11, 2025. He was 89. Born in New York City and raised in Tucson, Arizona, Dr. Terry earned his undergraduate degree from the University of Arizona. He completed residency before commissioning as a captain in the U.S. Army Medical Corps, serving in Nuremberg, Germany. He returned to establish a successful OB/GYN practice in Tucson. He was active in the American College of Obstetricians and Gynecologists, serving on its board. He contributed often to professional conferences and journals in the field. Due to a severe leg injury, he retired early and found solace in music and travel, attending many jazz concerts and operas. He enjoyed genealogy, history, and stamp collecting. He is survived by his wife, Barbara, three children, and six grandchildren.

1962

Andrew "Andy" J. Franzone, a cardiothoracic surgeon and longtime educator, died July 1, 2025. He was 88. Born in New York City, he graduated from College of the Holy Cross. He completed a surgical internship and

Andrew J. Franzone'62

residency at Lenox Hill Hospital and served in the U.S. Army as a captain under the Berry Plan, with deployments to Korea and Somalia. He went on to complete advanced training in cardiothoracic surgery at Good Samaritan Hospital and Children's Hospital of Los Angeles. Dr. Franzone spent his entire 50-year career at Lenox Hill Hospital, where he helped pioneer open-heart surgery and mentored generations of medical students and residents. He took great pride in a 1977 publication showing that use of an intra-operative coronary shunt was associated with reduced incidence of heart attack during cardiac bypass surgery. Known for his calm demeanor and innovative thinking, he remained committed to improving patient care until his retirement in 2021. He is survived by his wife, Margaret "Peggy Anne" McGuirk, MD, three children, and three grandchildren. His daughter, Jeanne Franzone, graduated from VP&S in 2010.

1963

Richard "Dick" Lionel Banner, a cardiologist and medical educator, died Jan. 23, 2025. He was 86. Born in New York City, he graduated magna cum laude from Amherst College. He served in the U.S. Public Health Service during the Vietnam War as a heart disease control officer in Washing-

Richard Lionel Banner'63

ton, D.C., and Peoria, Illinois. He completed his cardiology training at the University of Rochester's Strong Memorial Hospital in 1970. Dr. Banner held faculty appointments at the University of Rochester and served as director of cardiology before moving to Portland, Oregon, in the late 1970s. There, he practiced privately for over 25 years and held leadership roles in the Oregon Medical Association, the American Heart Association's Oregon affiliate, and the Multnomah County Medical Society. He was an avid chess and bridge player and enjoyed tennis, biking,

boating, and family road trips. He is survived by his wife, Arlene, and two children.

Joel S. Hoffman, a psychiatrist and specialist in treatment-resistant affective illness, died Jan. 15, 2025. He was 87. Born in New York City, he graduated cum laude from Harvard College. He completed an internal medicine residency at the University of Michigan, where he also earned a master's in neuropharmacology. He later completed a psychiatry residency at the New York State Psychiatric Institute and Columbia-Presbyterian Medical Center. Dr. Hoffman served as a captain in the U.S. Air Force and director of the Internal Medicine Service at Barksdale Air Force Base Hospital from 1967 to 1969. A committed advocate for social justice, he published an anti-war newspaper during his service and helped initiate civil rights cases in Louisiana. In New York, he maintained a private psychiatric practice and held clinical and teaching appointments at Columbia-Presbyterian, Lenox Hill Hospital, and the New York University School of Medicine. He earned an MPH from the Mailman School of Public Health in 1979. He was a lifelong reader and thinker, enjoying time at his Shelter Island home, where he co-founded the local property owners' association and joined a weekly political philosophy group. He is survived by his wife, Lily, two children, and four grandchildren.

Joel S. Hoffman'63

1964

Anthony "Larry" Lawrence Cervino, a plastic surgeon, died Dec. 16, 2024. He was 86. A native of Jeannette, Pennsylvania, Dr. Cervino graduated from Princeton University. Following residency and fellowships in hand and reconstructive surgery, he served from 1965 to 1967 in a mobile army surgical hospital unit in Vietnam as part of the U.S. Army Medical Corps. Dr. Cervino began his practice in Akron, Ohio. In 1989, he was among the founders of the Crystal Clinic in Montrose, Ohio. Known for his tireless work ethic and energetic spirit, he loved storytelling and making others laugh, as well as reading and golf. He is survived by his wife, Elizabeth, five children, and seven grandchildren.

Lewis "Dewey" L. Hamilton, a neurologist dedicated to education and conservation, died July 20, 2025. He was 85. A Pennsylvania native, Dr. Hamilton graduated from Yale University. He completed his internship at Bellevue Hospital in Manhattan and volunteered for the U.S. Army during the Vietnam War, serving as a captain and chief of hospital clinics at Fort Gordon. He was awarded the National Defense Service Medal for his meritorious service. Shortly after, he undertook neurology training with additional subspecialty certification in electroencephalography, electromyography, and clinical physiology. Following early practice in Arizona, he joined the senior staff of the Mary Imogene Bassett Hospital in Cooperstown, New York, in 1976, while teaching at Columbia and Dartmouth. Widely published, he examined for the American Board of Psychiatry and Neurology and was recognized as a fellow of the Royal Society of Medicine. A lover of nature, he was active in the Adirondack Trail Improvement Society and enjoyed golf, fly fishing, and time in the Adirondacks. He was predeceased by his first wife, Kitty, and his second wife, Bunny. He is survived by his fiancée, Linda, one child, and three grandchildren.

1965

George "Skip" William Luhrmann Jr., a psychiatrist, died March 15, 2025. He was 90. Born in Cedar Brook, New Jersey, he earned his undergraduate degree from the Massachusetts Institute of Technology. He served for two years in the U.S. Public Health Service before completing residency training in psychiatry at the New York State Psychiatric Institute, serving as chief resident in 1969. He started a private practice and hospital-based work in New Jersey before relocating to Vermont in 1987. There, he held positions at the Brattleboro Retreat, HCRS in Bellows Falls, and New Hampshire Hospital. Known for his clinical insight and compassion, he specialized in treating severe childhood sexual and emotional abuse. He was drawn to Freud's writings, the human capacity for dissociation, and the treatment of severe mental illness and addiction. He was a passionate reader and photographer, captivated by geology, physics, and the mysteries of consciousness. At home in Vermont, he cultivated a large garden, built a waterfall and pond, practiced photography, and spent quiet time surrounded by books. He was predeceased by his wife, Winifred, and one daughter. He is survived by two daughters and four grandchildren.

1966

Douglas Fielder Greer, an ophthalmologist and writer, died June 12, 2025. He was 85. Born in Charleston, South Carolina,

Douglas Fielder Greer'66

he spent part of his childhood in Japan and France before settling in Arlington, Virginia. He earned his undergraduate degree from Princeton University. Dr. Greer maintained a solo ophthalmology practice in Washington, D.C., for several decades and was committed to expanding access to care, including providing surgical services in the Caribbean. Outside of medicine, Dr. Greer was an accomplished musician and writer. He composed music and wrote plays, screenplays, and novels, and remained deeply engaged in the performing arts. A lifelong athlete, he played football, rowed crew, and enjoyed tennis later in life. He is survived by his wife, Annette, two children, and two grandchildren.

1967

Walter "Wally" E. Berger III, a cardiologist, died Nov. 17, 2024. He was 85. A native of Middletown, Ohio, Dr. Berger graduated from Princeton University and served three years in the U.S. Navy. Dr. Berger completed his residency and cardiology training at the University of California, San Francisco. He joined the newly established Kaiser Hospital in Redwood City as its first cardiologist, later serving as chief of the cardiology department. An engaged Bay Area resident, Dr. Berger enjoyed tennis, bird-watching, world travel—especially Paris in December—and supporting

the arts, including the San Francisco Symphony. He and his wife, Nancy, were devoted West Highland white terrier owners, active in the breed's show community. He is survived by his wife and many nieces and nephews.

Dulaney Glen, an internist, died Aug. 4, 2025. He was 91. Born in Louisville, Kentucky, he graduated from Yale University, where he completed ROTC and was commissioned as an officer in the U.S. Air Force. After serving as a navigator and electronic countermeasures officer on a B-52, he worked at an investment bank before pursuing medicine. He was chief resident at St. Luke's Hospital in Manhattan and practiced internal medicine at North Shore Medical Group in Huntington, New York. In 1979, he and his family relocated to Pfafftown, North Carolina, where he kept a herd of Angus-Hereford cattle and practiced at R.J. Reynolds' Winston-Salem Health Care until his retirement in 1995. A devoted pianist who played entirely by ear, he built a repertoire of more than 2,000 songs and found joy entertaining friends, family, and, later, fellow patients and staff at Forsyth Hospital. He enjoyed crossword puzzles and time with his large family. He is survived by his wife, Wendy, seven children, 16 grandchildren, and seven great-grandchildren.

Quinn Benensohn Rosefsky, a psychiatrist and dedicated co-chair for the Class of 1967, died April 25, 2025. He was 83. Born in Binghamton, New York, he graduated from Yale University. He completed residency training in psychiatry and child psychiatry at Harvard Medical School and was a fellow at Judge Baker Children's Center. Dr. Rosefsky served as a captain in the U.S. Air Force from 1969 to 1971. He held diverse roles throughout his career, including work as a pediatrician, adult and child psychiatrist, and community psychiatrist for the Passamaquoddy Tribe in Easton, Maine. His wide-ranging interests included watercolor painting, hiking, and language study—he spoke French, Spanish, Japanese, and Russian. He played both the French horn and the shofar, the latter during High Holiday services at Temple Beth Elohim in Wellesley, Massachusetts. In retirement, he shared his passion for knowledge as a teacher at the Brandeis Osher Lifelong Learning Institute. As a co-chair for the Class of 1967, when a reunion was postponed in 2022 due to COVID-19, he began to lead monthly Zoom meetings that brought together classmates for presentations, discussions, and memoir writing. After he passed, his class dedicated one of the meetings (which continue monthly) to the theme "Remembering Quinn." He is survived by his wife, Susan, two children, and one grandchild.

1970

Gary Neal Foulks, an ophthalmologist specializing in cornea and external disease, died Jan. 31, 2025. He was 80. A native of Salt Lake City, he earned his undergraduate degree from Columbia College. He trained in surgery at the University of California, San Diego, and served as a lieutenant commander in the U.S. Public Health Service. He completed residency training in ophthalmology at Duke University and a fellowship at Harvard Medical School/Massachusetts Eye and Ear Infirmary. Dr. Foulks held faculty appointments at Duke, the University of Pittsburgh, and the University of Louisville, where he served as an endowed professor and assistant dean of clinical research. He authored more than 140 scientific papers and served as editor-in-chief of The Ocular Surface. He and his wife retired to Wilmington, North Carolina, where he served as a consultant to several pharmaceutical companies searching for new treatments for dry eye disease. He was a past president of the Castroviejo Cornea Society and the Contact Lens

Gary Neal Foulks'70

Association of Ophthalmologists. A fly fisherman, gardener, musician, and conservation advocate, he was known for his wit and generosity. He is survived by his wife, Nancy, three children, and four grandchildren.

Mark Austin Wightman, an anesthesiologist, died Nov. 9, 2024. He was 82. Born in New York City in 1942, Dr. Wightman grew up in Weston, Connecticut, and attended Yale University, where he completed a PhD in geology. After an internship in Cooperstown, New York, he served with the U.S. Public Health Service in Dulce and Santa Fe, New Mexico, where he developed a lifelong connection to the Southwest. He returned to Columbia for anesthesiology training and completed a fellowship in Tucson, Arizona, before settling in Santa Fe. Dr. Wightman spent his career at Christus St. Vincent Hospital, first as an anesthesiologist and later, after retirement in 2000, as director of physician relations. He enjoyed camping, travel, photography, and jewelry making with his family. He was predeceased by a son. He is survived by his wife, Mary Ann, and one son.

1972

James Stephen Bower, pulmonologist and critical care specialist, died Aug. 30, 2024. He was 78. A native of Tacoma, Washington, Dr. Bower earned his undergraduate degree from Harvard University. He completed his residency in internal medicine and a fellowship in pulmonary and critical care at the University of Michigan, remaining on faculty there for several years. In 1981, Dr. Bower joined the Kansas City Pulmonary Clinic and cared for patients at Research Medical Center, where he served as president of the medical staff and as a member of the board of directors. He later earned a master's degree in health care administration from the University of Wisconsin and became chief medical officer at Research Medical Center. An accomplished athlete, Dr. Bower played baseball at Harvard, excelled in multiple sports, and enjoyed tennis, golf, and boxing. A lifelong learner and gifted teacher, he shared his love of knowledge with his children and grandchildren, encouraging curiosity and exploration. He is survived by his wife, Susan, three children, and eight grandchildren.

Michael "Mike" Douglas Dickens, a pediatrician and presidential historian, died Feb. 18, 2025. He was 78. A graduate of Princeton University, Dr. Dickens was chief resident at the University of Virginia before serving two years of active duty in the U.S. Navy Medical Corps. Dr. Dickens practiced pediatrics for 35 years with Pediatric Associates in Charlottesville, Virginia, and served on the staff of Martha Jefferson Hospital. He also taught at the University of Virginia and was an

active member of the American Academy of Pediatrics, which he represented at the White House during the Clinton health reform initiative in 1994. He participated in multiple medical missions to Haiti. Passionate about American history, Dr. Dickens volunteered as a docent at James Madison's Montpelier and James Monroe's Highland and served as chairman of the board of trustees of the Woodrow Wilson

Michael Douglas Dickens'63

Presidential Library. He lectured widely on both pediatric medicine and presidential history, and he was deeply involved in civic and church life. He is survived by his wife, Melissa, two children, and one grandchild.

1974

Robert Joseph Mascitelli, a cardiologist and internist, died in 2025. He was 75. Born in Queens, New York, he completed his undergraduate studies at the College of the Holy Cross. He completed an NIH research fellowship during medical school, trained in internal medicine at New York Hospital–Weill Cornell, and completed his cardiology fellowship at New York Hospital–Columbia. Dr. Mascitelli began practicing in 1980 and spent nearly four decades in clinical care, specializing in cardiovascular disease. He is survived by his companion, Nigi Sato, two children, and four grandchildren.

1975

Jimmy Graham, an internist, rheumatologist, and pastor, died June 26, 2025. He was 76. Born in Atlanta, Georgia, as the eldest of eight siblings, he had a penchant for leadership and care. He earned his undergraduate degree from Emory University, where he also returned for medical internship, residency, and fellowship in rheumatology. He founded Graham Medical Center in Atlanta, where he focused on preventive care and nutrition. In 2002, he published "52 Weeks: A Physician's Guide to Weight Management and Health." He was known for his humor, candor, and compassion at the bedside. He served as an active member of the Arthritis and Lupus foundations, the Georgia Rheumatism Society (now Georgia Society of Rheumatology), and the Christian Medical Society. In 1988, he also founded the Church of Acts, blending his calling as both a physician and a pastor to minister to the whole person: body, mind, and spirit. He also served as a commander in the U.S. Naval Reserve. Dr. Graham enjoyed gardening, music, and cheering for the Atlanta Falcons. He is survived by his wife, Lisa, nine children, and 14 grandchildren.

Harlan Kutscher, a urologist, died Aug. 5, 2024. He was 75. A native of New York City, Dr. Kutscher graduated from Columbia College. In 1980, he founded Urology Associates of Reading, Pennsylvania, where he built a loyal patient base. He served as president of Temple Oheb Sholom and as a preceptor for medical residents at St. Joseph's Hospital. Known for his civic engagement, Dr. Kutscher was active in local and national political organizing and was a patron of the arts. An avid reader, he had a passion for

Harlan Kutscher'75

books and the New York Times crossword puzzle. He enjoyed computer programming, graphics, painting, and drawing. He is survived by his wife, Carole, two children, and two grandchildren.

Joseph Robert Stadelnikas, an anesthesiologist and army captain, died Dec. 3, 2024. He was 77. A Philadelphia native, Dr. Stadelnikas graduated from the U.S. Military Academy at West Point in 1970 and served as an aerospace engineer on the Minuteman missile system before pursuing medicine. He trained in anesthesiology and later practiced in New York and Atlanta. He spent much of his career at Emory Crawford Long Hospital in Atlanta. While still working in medicine, he earned an MBA from Florida State University and founded Conservative Option Strategies, an online trading and mentoring community, and published on a variety of financial topics. Dr. Stadelnikas was known for his love of marathons, cooking, and evening cigars. In later years, he embraced life in Oxford, Mississippi, with several dogs and cats. He is survived by his wife, Leigh, two stepchildren, and five grandchildren.

Kenneth Dale Zeitler, a medical oncologist, died Nov. 13, 2024. He was 75. Dr. Zeitler was born in Malden, Massachusetts, and graduated from Columbia College. He completed residency in Boston and a fellowship in oncology at the University of North Carolina at Chapel Hill. For nearly four decades, Dr. Zeitler cared for patients at Raleigh Hematology Oncology Associates and Rex Hospital. He was honored as a volunteer of the year for the American Cancer Society. Known for his humility, generosity, and humor, he was an accomplished athlete and photographer. In alumni records from 1999, he wrote: "I don't focus on the ephemeral accomplishments of my life, but I celebrate all the wonder of life and hope to make a difference." He is survived by his wife, Joyce, two children, and five grandchildren.

1977

John E. Bock, neurologist and dairy farmer, died July 11, 2025. He was 79. Born in Huntsville, Texas, his undergraduate studies at Princeton University were interrupted by service as a helicopter pilot in Vietnam with the 2nd Battalion, 20th Artillery of the 1st Cavalry Division, known as "Blue Max." He later trained in neurology and went on to practice in Conroe and Huntsville, Texas, where he cared for patients for more than three decades. Known for his steady demeanor and clear communication, Dr. Bock earned the trust of patients seeking both his medical expertise and practical wisdom. In retirement, he founded Goodgrass Farm, a raw milk dairy where he combined scientific curiosity with hands-on farming, cultivating legumes and native grasses and managing livestock. He enjoyed reading history, poetry, and dense nonfiction. He built from scratch—whether bread ovens, chicken coops, or wagons—and shared knowledge generously. He is survived by his wife, Camille, and four children.

ENSURE A LASTING LEGACY

Research training today shapes the physician-scientists of tomorrow. Your planned gift can help.

At Columbia University Vagelos College of Physicians and Surgeons (VP&S), our physician-scientists are at the forefront of redefining what is possible for patients. But breakthroughs happen long before a patient receives a treatment. They can begin with a medical student asking a question—and having the support to pursue the answer. At VP&S, our research training helps future physicians think critically, innovate boldly, and lead progress across every field of medicine.

Meet **Hannah**, VP&S Class of 2026, who took a year during her medical training to expand her skill set in epidemiological research. Working with the Department of Otolaryngology—Head & Neck Surgery, Hannah is focusing on hearing loss and its impact on cognitive and psychological conditions. Her research shows that hearing loss is associated with depressive disorders, pointing the way toward more comprehensive care.

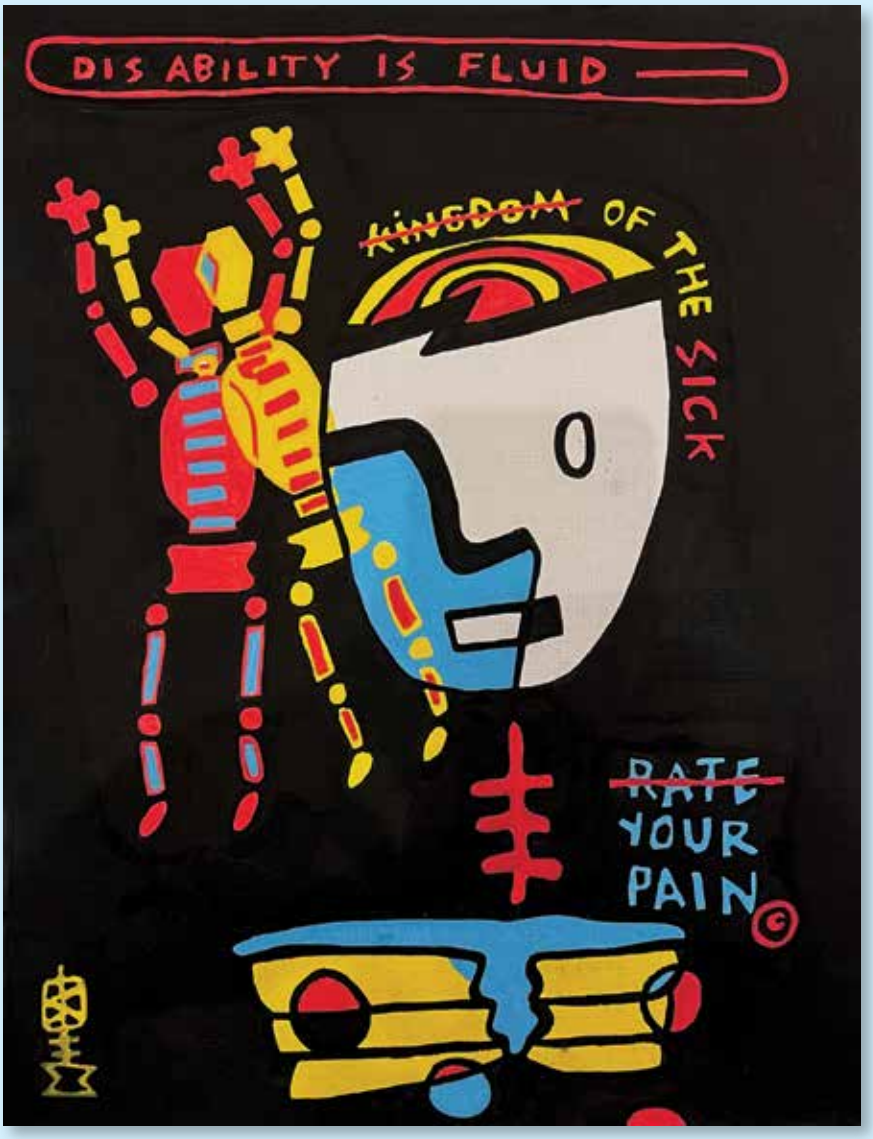
Consider a planned gift today and secure the future of science and medicine.

COLUMBIA

212.342.2108 • dev_plannedgiving@cumc.columbia.edu
www.giving.cuimc.columbia.edu/ways-give/planned-giving

COLUMBIA | VAGELOS COLLEGE OF PHYSICIANS AND SURGEONS
630 WEST 168TH STREET
NEW YORK, NY 10032

Non-Profit Org.
U.S. Postage
Paid
Burl, VT 05401
PERMIT NO. 19



SAL MARX'22
SICK, HEALTHY, OTHER, 2020
ACRYLIC PAINT PENS ON CANVAS
14 IN. × 11 IN.

The Art of Health Care

This year marks the 25th anniversary of Columbia's Program in Narrative Medicine, a medical-humanities field that teaches students to approach art with certain sensibilities—from intense focus to careful reflection—then bring those well-developed powers of attention to patients. Narrative medicine graduate Sal Marx'22 is an artist living with chronic illness whose creative practice was born out of a need to communicate and visualize lived experiences of pain. This painting was completed during Marx's coursework in Illness and Disability Narratives, a core class taught by Sayantani DasGupta, MD, PhD. "Sick, Healthy, Other" resists linear narrative interpretation, says Marx: Words are crossed out and colorful bodies are abstracted, confirming that although pain can be a debilitating force, its visual expression defies its tendency to destroy language and inhibit shared connection. Art can carve out a home for illness, and narrative medicine teaches us to step into these homes, listen closely to non-verbal methods of telling, and take greater responsibility in practicing care.

See "How to Treat a Patient Like a Work of Art" on page 30.