

# Columbia Medicine

Columbia University Vagelos College of Physicians & Surgeons

SPRING/SUMMER 2024

## Patient Safety

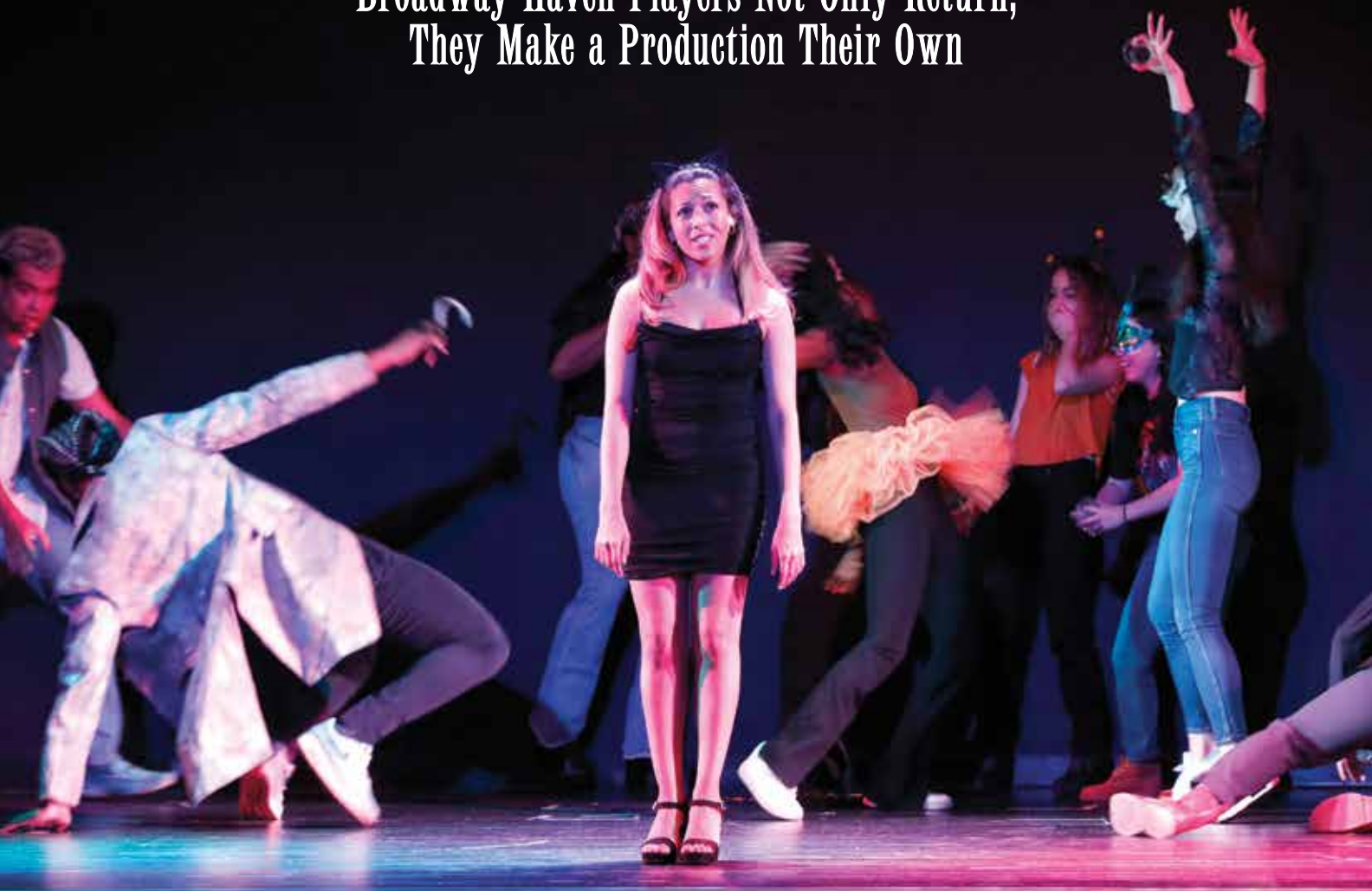
New center explores systems to prevent medical errors

## Weight Loss Drugs

The newest drugs drive the search for better ones

# HAVEN SENT

Broadway Haven Players Not Only Return,  
They Make a Production Their Own



## Dear Readers,

With another school year behind us, I have been reflecting on the remarkable journey of the newest class of VP&S MD graduates. Students in the Class of 2024 started their medical education four years ago, just months into the COVID-19 pandemic. The class had a virtual White Coat Ceremony in August 2020 and attended classes remotely, but our faculty were able to cloak students in white coats in person at their transition ceremony in January 2022. And now, this class that skillfully navigated one of the most difficult periods in the history of modern medicine has emerged from the other side. They have more than earned the right to be called doctor. Their resilience, adaptability, and empathy in the face of extreme adversity define what it means to be a VP&S graduate—and a good physician. To have these students join the ranks of health care providers and VP&S alumni brings me great hope for the future and for our ability to change the face of medicine.



As these students head to residencies across the country, we continue our important work on campus, recognizing that this has been an extraordinarily difficult moment in the life of our university. The global and local events of recent weeks and months have been deeply distressing, particularly for a community dedicated to health and healing. Despite the challenges we have faced, VP&S faculty, staff, and students have stayed true to our shared commitment to advancing health and well-being with the very highest level of skill and with unwavering compassion.

We acknowledge that many people have different perspectives about the Middle East and what is happening on campuses across the country, but as we navigate these differences, we come together to denounce antisemitism, Islamophobia, and all other forms of hate, bigotry, and discrimination that are counter to our community values and have no place on our campus.

During this difficult time, we have renewed our commitment to the core missions, and that commitment is seen in stories in this issue that illustrate how innovation in patient care, scientific discovery, and education of the next generation of doctors and scientists intersect to make our school such a special place. Thank you for the many ways you support our work and strengthen our dedication.

All my best,

A handwritten signature in black ink that reads "Katrina Armstrong".

**Katrina Armstrong, MD**

Dean

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## Curtain Rises Again, This Time on Original Musical: “Topeka or To-Not-Peka”

By [Christina Hernandez Sherwood](#)

After a pandemic pause, the Broadway Haven Players return with a musical written, directed, produced, and performed by VP&S students.

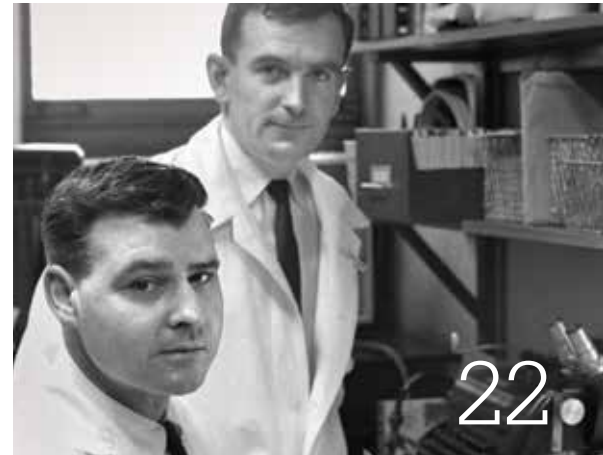


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## Weight Loss Drugs: Progress But Not Far Enough

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The director of the new Patient Safety Science Center has seen his own research result in national patient safety guidance, and he wants to develop the next generation of patient safety researchers.

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## Katrina Armstrong, MD

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## State of Care

The *Columbia Medicine* Winter 2023 issue is like a seminar on modern medicine, with VP&S at the cutting edge, and impressive with the diversity of researchers and students, something to be proud of. It's good to be an alumnus in these times.

Norbert Hirschhorn'62

As a retired neurosurgeon, I very much enjoyed the

article regarding "The State of Care of The Brain" (Winter 2023 *Columbia Medicine*). I suspect that the next issue of the magazine will highlight: "The State of Care of: MEN'S HEALTH."

Laurance J. Guido'69

## Students at the Bench

I enjoyed the article "Students at the Bench: Fellowships Fund a Year of Inquiry" (Spring/Summer 2023 *Columbia Medicine*). How I wish that such a program had been in existence when I was a student at VP&S. Nevertheless, the dean's office at that time was very receptive to student initiative and allowed me to spend six months of elective rotation during my fourth year doing laboratory research on chronic granulomatous disease, an experience with many intellectual benefits. One important point, however, was not addressed by the article. In addition to enhancing a medical student's (or resident's) education, the opportunity to do medical research also sometimes leads to important advances in medicine. Examples include the bromsulphthalein (BSP) test for liver function conceived by Sanford Rosenthal (1897-1989) when he was a medical student, the co-discovery of insulin by Charles Best (1899-1978) when he was a medical student, the invention of cardiac catheterization by Werner Forssmann (1904-1979) when he was a surgical intern, and the discovery that *Helicobacter pylori* is a cause of duodenal ulcers and many gastric ulcers by Barry Marshall (born 1951) when he was a resident in internal medicine. I described these in detail in an article, "Research opportunities for medical students and residents," published in *Hektoen International*, a journal of the medical humanities, Summer 2021.

Edward Tabor'73

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## New Research Building to be City's First All-Electric Building of Its Kind

**Building combines state-of-the-art medical research with a vision for a more sustainable future for science**

**C**onstruction begins this summer on New York City's first all-electric university research building. The building, which will be located east of Broadway at the corner of 167th Street and Audubon Avenue, will house eight stories of laboratories and research facilities, collaboration corners, living walls, and community engagement spaces.

This will be the first university-owned research building in New York City that does not rely on fossil fuels. It incorporates sustainability goals into all aspects of its design and operations and will use significantly less energy than similar buildings of its kind.

"We are so proud to be laying the groundwork for this innovative new research building at Columbia. To create a space that will advance biomed-

ical science, bring us closer to our local community, and help our medical center reduce its carbon footprint all in one is truly remarkable," says Katrina Armstrong, MD, VP&S dean. "Our purpose as a university is to drive discovery, educate next-generation leaders, and create inclusive partnerships with our community. This new space will offer the best environment for our people to do all three."

The building's laboratory floors will have flexible research space and house 32 principal investigators plus their teams of research technicians, postdoctoral researchers, and graduate students. Unique collaboration corners will help facilitate spontaneous interactions and idea-sharing among scientists. Biophilic elements such as green walls of living plants and the extensive use of natural, renewable materials

**LOCATION:** The corner of 167th Street and Audubon Avenue with connections planned to the School of Nursing and the Russ Berrie Medical Science Pavilion

**SIZE:** Eight stories, approximately 77,000 square feet

**DESCRIPTION:** Wet laboratories and adjacent support/administrative spaces to support 32 principal investigators and their teams (approximately 207 researchers)

**ESTIMATED START OF CONSTRUCTION:** Summer 2024

**ESTIMATED COMPLETION AND OCCUPANCY:** Fall 2026



will help reduce work fatigue and provide health and environmental benefits. The building will be accessible to community partners, providing ground level space to support community health engagement and research education activities.

Research laboratories typically consume five to 10 times more energy per square foot than an average office building, according to the Department of Energy. At a time when scientists are increasingly concerned about the environmental impact of their research, the building will set an example of a more sustainable

future for science. To limit energy consumption, research spaces will incorporate many sustainable design strategies, including high-efficiency lab fume hoods, demand-based controls for lab equipment, and air-source electric heat pumps.

The building is expected to outperform emission limits set by New York City’s Local Law 97 and help advance Columbia University’s Plan 2030 climate goal of achieving campuswide net-zero emissions by 2050.

The building is designed by Kohn Pedersen Fox architecture firm.



MICHAEL DIVITO

## Class of 2026 Celebrates Transition to Clinical Education

**Second-year medical students** in the Class of 2026 celebrated their transition from classroom-based instruction to clinical education with the Steven Z. Miller Student Clinician’s Ceremony on Jan. 5 before moving on to a series of rotations through hospital and ambulatory settings at Columbia University Irving Medical Center/NewYork-Presbyterian and affiliated hospitals.

In his remarks as the clinical faculty speaker at the event, Said Saab, MD, assistant professor of obstetrics & gynecology, encouraged the students to keep an open mind as they embark on their clinical rotations: “Remember the enthusiasm and the fire you feel right now. Use it to thrive on the wards and reflect back on it when things become difficult and challenging. You might be feeling internal or external

pressure to choose a specialty, but I encourage you to keep an open mind and be open to new experiences. If you remain open to exploring, or if you’ve decided and look for the relevant threads in every block, that curiosity will propel you forward.”

Students read their class oath, which states their values and affirms their commitment to medicine and duty to their patients and communities.

Benjamin Lebwohl, MD, associate professor of medicine and epidemiology, was the faculty pre-clinical speaker at the event. He emphasized the critical role that the students will have in patient care: “MCY reaffirmed my faith in pursuing a career in medicine. You’ll be the interpreter between the physician and the patient, and your role is central to the team and to our hospital. There are times



MICHAEL DIVITO

when a team doesn’t have an MCY student and it diminishes us. As you navigate this year and learn to take care of patients, take care of each other. When MCY students have each other’s backs, it helps the whole team.”

## Chairs Named for Three Departments



**Kevin Gardner, MD, PhD**, professor of pathology & cell biology, has been named chair of the Department of Pathology & Cell Biology and pathologist-in-chief at NewYork-Presbyterian/CUIMC. He had served as interim chair of the department since July 1, 2023. He succeeds Kevin Roth, MD, PhD, who chaired the department for eight years.

Dr. Gardner joined VP&S in 2017 as senior vice chair of the Department of Pathology & Cell Biology. He also served as director of the Digital and Computational Pathology Laboratory and the Physician-Scientist Research Pathway in Pathology. In these roles he oversaw basic, translational, and clinical research within the department and led career development and mentoring for aspiring physician-scientists.

Before joining Columbia, Dr. Gardner was a senior investigator at the National Cancer Institute and scientific director of the National Institute on Minority Health and Health Disparities, where he led health disparities research conducted by tenure-track investigators, staff scientists, and staff physicians.

While at the National Cancer Institute, he received two NIH Director's Awards for his work defining the mechanisms of gene regulation and their role in the evolution of cancer and for conducting the first research to define a molecular mechanism linking metabolic imbalance with increased risk of breast cancer. Dr. Gardner is an elected member of the American Society for Clinical Investigation.

He received his PhD degree in cellular biology and anatomy from Johns Hopkins School of Medicine, where he also earned his MD degree. He completed a residency at the NIH and a fellowship at Johns Hopkins Hospital.



**Joshua A. Gordon, MD, PhD**, will return to Columbia in August as chair of the Department of Psychiatry, director of the New York State Psychiatric Institute, and psychiatrist-in-chief of the Columbia campus of NewYork-Presbyterian. Currently director of the National Institute of Mental Health, Dr. Gordon served on the VP&S faculty from 2004 until joining the NIH in 2016.

At VP&S he directed an active, NIH-funded research program in basic neuroscience relevant to mental illness, taught students and residents, and maintained a part-time practice in clinical psychiatry. He served as associate director of the adult psychiatry residency program, where he oversaw the neuroscience curriculum and administered research programs for residents, including the Leon Levy Foundation Psychiatric Neuroscience Fellowship Program.

At the NIMH, Dr. Gordon oversees more than 1,000 employees and a \$2 billion annual budget. He has developed national scientific

priorities in mental health research and expanded efforts to support and mentor early career scientists from diverse backgrounds. He also serves as chief of the integrative neuroscience section at the National Institute of Neurological Disorders and Stroke.

His research has direct relevance to schizophrenia, anxiety disorders, and depression. His work focuses on the analysis of neural activity in mice carrying mutations of relevance to psychiatric disease. His lab studies genetic models of diseases from an integrative neuroscience perspective and employs a range of systems neuroscience techniques, including in vivo imaging, behavioral recordings, and optogenetics.

Dr. Gordon was elected to the National Academy of Medicine in 2018. He earned MD and PhD degrees at the University of California, San Francisco, and completed residency and a research fellowship at Columbia.

**Ajay Gupta, MD**, joined VP&S as chair of the Department of Radiology on Feb. 1, 2024. A physician-scientist, Dr. Gupta is a board-certified radiologist specializing in neuroradiology. He joined VP&S from Weill Cornell Medicine, where he was vice chair for research in the Department of Radiology and professor of radiology and neuroscience. He succeeds Lawrence Schwartz, MD, who chaired the department for 13 years.



At Weill Cornell, Dr. Gupta led a research program to evaluate emerging neuroimaging techniques that may improve patient care. He has applied this investigative approach across a range of neurological disorders, focusing on stroke prevention and cerebrovascular disease assessment. As vice chair for research in radiology, he oversaw a nearly five-fold increase in federal research funding across the department, significant expansion of the clinical and translational research faculty, and modernization of research imaging infrastructure and facilities.

His research is supported by the NIH, and his contributions to imaging research have been published in more than 200 peer-reviewed articles.

Dr. Gupta has been recognized with numerous awards including the Distinguished Investigator Award from the Academy for Radiology & Biomedical Imaging Research and the Robert C. Watson Award for Teaching Excellence in Radiology. He is a senior editor for the American Journal of Neuroradiology.

Dr. Gupta received his MD degree from Johns Hopkins University and an MS degree in clinical & translation investigation from Weill Cornell Graduate School of Medical Sciences. An internship at the Memorial Sloan Kettering Cancer Center was followed by a diagnostic radiology residency and neuroradiology fellowship at Weill Cornell Medicine/NewYork-Presbyterian.

## Cerebral Palsy Center Combines Basic Research, Patient Care

The Weinberg Family Cerebral Palsy Center is unique in producing significant breakthroughs in both basic science and patient treatment and is the only CP center in the nation to incorporate basic research into its program.

The center provides comprehensive lifetime care for people with cerebral palsy by coordinating clinical services across medical specialties, offering both pediatric and adult care, and providing support programs and mental health services. Including the entire research pipeline in one place, from laboratory bench to clinical trial to treatment, keeps the team focused, says Jason Carmel, MD, PhD, the center's executive director. "Having it all under one roof gets those conversations going about what the best experiment is that we need to do, in order to show that it's going to be helpful, that it has a path toward people."

The center's projects have illustrated the effectiveness of that approach. In one project, Dr. Carmel and his colleagues began with a human study on children with hemiplegic CP, in which damage to one side of the brain leads to a loss of function on one side of the body. "We found that a kid's ability to use their hand was much more tied to the integrity of their sensory system, compared to the motor system, which is against conventional wisdom," says Dr. Carmel, the Weinberg Family Associate Professor of Neurology.

Taking those results into the lab, the team analyzed the phenomenon in rats, confirming the human findings and revealing how hemiplegic damage affects the nervous system. Motor neurons appear to adapt better to damage, rerouting signals so the undamaged side of the brain can control both sides of the body. Sensory neurons, however, don't adapt as well. Electrically stimulating both motor and sensory nerves partially restored their lost dexterity.

It's exactly the sort of breakthrough envisioned for the center, which opened in 2013. "The inclusion of a research program enables us to understand the safety and efficacy of an approach before initiating trials in people," says Dr. Carmel.

Scientists at the center are also looking at the possibility of combining spinal cord stimulation with brain stimulation. All forms of skilled movement, from writing a name to hitting a tennis ball, require two sets of signals between the brain and muscles: motor signals from the brain for the muscles to move and a return set of sensory signals to keep the brain aware of the body's position and the environment. "We think that a critical site for those signals to interact is at the level of the spinal cord," says Dr. Carmel.

Recent research at the center has shown that stimulating both the brains and spinal cords of animals with nervous system injuries can decrease spasticity and improve limb function. The team is testing this approach in the operating room in people undergoing surgery. They are also trialing the approach using non-invasive stimulation of brain and spinal cord.



Jason Carmel

JÖRG MEYER

In another project, Dr. Carmel and his colleagues have been exploring the causes of CP. Traditionally, doctors have been taught that people acquire CP during development, most often when premature birth, infection, or other environmental factors damage the nervous system or derail its development. "What we've learned more recently is that genetics also plays a large role," says Dr. Carmel, adding that the center is part of a major research consortium trying to understand how genetic risk factors are involved in the condition.

The team is also trying to refine diagnosis. Like many other neurological diseases, CP occurs across a spectrum. One patient could walk with a slight limp while another is confined to a wheelchair. "We need to figure out the way the nervous system is wired and then really treat that person with more of a personalized medicine approach," says Dr. Carmel. The center is part of the Cerebral Palsy Research Network, which uses data from large cohorts of patients to pursue precision medicine approaches. It's not just an academic interest. With more therapies becoming available, he adds, it's important to figure out which treatments are most likely to work for each patient.



Dr. Carmel is cautiously optimistic about the future of CP care and research. “Medicine is notoriously always five years away from a cure,” he quips, but the CP field is moving rapidly toward tailored treatments and more of them. Basic and clinical research in other fields is also propelling progress in CP. “Because of the success of neuromodulation in other conditions, such as Parkinson’s disease and spinal cord injury, I think that there’s going to be some electrical stimulation-based approaches in the clinic soon.”

A \$6.5 million donation given to the center last year will enable the center to expand both its research and clinical care programs. The donation came from Deborah and Peter Weinberg, the center’s original benefactors. While grants from outside funding agencies, including the NIH, cover individual basic research projects at the center, the new donation will support additional clinical laboratory space, a full-time clinical researcher, and expansion of the multidisciplinary clinical team.

— Alan Dove

## News in Brief



Two VP&S faculty members were elected to the National Academy of Medicine last fall: **Siddhartha Mukherjee, MD**, associate professor of medicine, and **Brent R. Stockwell, PhD**, professor of pathology & cell biology. Dr. Stockwell is also the William R. Kenan Jr. Professor of Biological Sciences, professor of chemistry, and chair of the Department of Biological Sciences at Columbia. Both Dr. Mukherjee and Dr. Stockwell are members of Columbia’s Herbert Irving Comprehensive Cancer Center. Dr. Mukherjee was elected for contributing to research in the immunotherapy of myeloid malignancies, such as acute myeloid leukemia, for establishing international centers for immunotherapy for



childhood cancers, and for the discovery of tissue-resident stem cells. His book, “The Emperor of All Maladies,” won the Pulitzer Prize and was nominated by Time as one of the century’s 100 most influential books. Dr. Stockwell was elected for his discovery of ferroptosis, a form of iron-driven, oxidative cell death involving lipid peroxidation. He defined its features, mechanistic basis, the key genes and proteins and inhibitors that regulate it, and tools to study it. He identified the roles of ferroptosis in neurodegenerative diseases and cancer, suggesting novel therapeutic strategies.

**Hashim Al-Hashimi, PhD**, will succeed Arthur Palmer, PhD, as VP&S associate dean of bio-



medical graduate education as of the 2024-25 academic year. Dr. Al-Hashimi served as chair of the Graduate Education Future-State Task Force, which reimagined the future of PhD graduate programs at VP&S by holding discussions with current students, program directors, and chairs and consulting colleagues at other institutions. The task force considered program governance structures, resources needed by graduate students and their faculty mentors, new models for research training, and the best means to recruit talented and diverse students. Dr. Al-Hashimi is the Roy and Diana Vagelos Professor of Biochemistry & Molecular Biophysics. He joined Columbia in 2022 following

appointments at Duke and the University of Michigan.

BALSO—the Black and Latino Student Organization—joined the VP&S Office of Student Diversity, Inclusion, and Belonging to host the Latino Medical Student Association’s Fall House of Delegates at Columbia. Nearly 100 medical students, including chapter representatives from 43 medical schools across the Northeast, attended the event. The theme this year was “Unidos, Empoderando la Comunidad” (Together, Strengthening the Community), chosen because it represents the association’s commitment to empowering local communities through policy change, research initiatives, nutrition as medicine, and more. **Melissa Hynds**, VP&S medical student and 2023 LMSA president, welcomed the conference attendees. Ms. Hynds was a co-leader of the conference with fellow VP&S medical students **Kimberly Sanchez** and **Gerardo Ramos-Lemos**. BALSO is a chapter of the Student National Medical Association and the Latino Medical Student Association.

## Endoscopy as Treatment for IBD

**C**olumbia's Inflammatory Bowel Disease Center offers new ways to treat inflammatory bowel disease and ileal pouch disorders.

Led by founder and medical director Bo Shen, MD, the center performs more therapeutic endoscopic procedures than any other institution in New York or the United States to manage Crohn's disease and ulcerative colitis, two types of IBD.

Patients with IBD are often treated medically at first, but within five to 10 years many will develop structural complications, such as strictures and fistulas, that require surgery to remove part or all of the small and/or large intestine. Internal pouches are sometimes created to provide a reservoir for feces when the large intestine is removed due to medically refractory ulcerative colitis or colitis-associated tumor. Post-surgical complications are common and some require subsequent surgeries, carrying high risk of disease recurrence.

In many cases, therapeutic endoscopy is more effective than medical therapy and less invasive than surgery for these

complications, says Dr. Shen, professor of medicine and the Edelman-Jarislowsky Professor of Surgical Sciences.

Dr. Shen innovated therapeutic endoscopy while practicing at the Cleveland Clinic and in 2019 brought his expertise to Columbia where he created the Interventional IBD Center.

Dr. Shen's first interventional endoscopy was designed to treat complications—strictures, fistulas, or bleeding of ileal pouch disorders—from previous surgeries. He then expanded into techniques for any patient with structural complications from IBD or colorectal diseases before and after surgery.

“Endoscopy is the tool we use to deliver the therapy to the disease, to reach the different parts of the GI tract without having to use more invasive surgical methods,” he says. The center performs about 1,200 endoscopic procedures each year, and the procedures often defer the need for surgical treatments.

At Columbia, Dr. Shen has created a collaborative approach to bring the best care possible to patients. His team includes

experts in adult and pediatric gastroenterology, colorectal surgery, GI radiology, GI pathology, GI oncology, clinical nutrition, obstetrics & gynecology, and wound and ostomy care. Particularly complicated cases are discussed each month by the IBD Board, made up of two dozen specialists from Columbia and Cornell. “The best treatment plan is devised collaboratively,” says Dr. Shen. “Patients come to us from all over the world because we offer the expertise and treatment patients need.”

Dr. Shen also works to educate other physicians and potential patients about the value of the endoscopic approach. He founded the Global Interventional IBD Group, Special Interest Group of Interventional IBD in the American Society for Gastrointestinal Endoscopy, and the International Ileal Pouch Consortium to train others in this approach to treating IBD. He has authored over 600 peer-reviewed scientific articles and many books on IBD and lectures extensively across the country and abroad.

In 2023, in recognition of his contributions to the management of complex IBD and pouch disorders, Dr. Shen was awarded a Distinguished Clinician Award in Academic Practice from the American Gastroenterological Association.

“I want to make our center the last stop for patients needing complex IBD care and treatment for IBD surgical complications,” he says. “I think we are well on the way to doing that.”  
— Brenda Lange

Contact Columbia's IBD Center at <https://columbiasurgery.org/colorectal/inflammatory-bowel-disease-center-columbia> or (212) 305-9664.



COURTESY OF BO SHEN

Endoscopic therapy for stricture, before and after



## Hope for Patients with Rare Form of Pulmonary Hypertension

**Chronic thromboembolic pulmonary hypertension**, or CTEPH, is rare, occurring in about 3% of patients who experience an acute pulmonary embolism. And though most cases can be treated using an innovative surgery called pulmonary thromboendarterectomy, which clears the pulmonary arteries of chronic blockages, the surgery is complex and is performed only by surgeons experienced in the procedure.

About 300 surgeries—approximately 20 per year—have been performed at Columbia’s Pulmonary Hypertension Comprehensive Care Center, one of the few centers in the eastern United States that offer the procedure. The program, established in 2009, is now led by cardiothoracic surgeon Koji Takeda, MD, PhD, surgical director of heart transplant and mechanical circulatory support for the Division of Cardiothoracic Surgery.

“Pulmonary thromboendarterectomy is the only curative therapy for CTEPH,” says Dr. Takeda, associate professor of surgery. These patients “are very sick” and typically have serious shortness of breath often requiring oxygen. Additional symptoms—fatigue, chest pain, cough, and edema—can make an accurate diagnosis difficult because of their similarities to symptoms of other disorders, including heart failure.

Diagnostic tests include an echocardiogram, pulmonary angiogram, and examinations by a pulmonary hypertension specialist and inter-

ventional cardiologists. This multidisciplinary approach allows for accurate planning and avoids delays in treatment.

Patients who have certain comorbidities or are too weak may not be appropriate candidates for the surgery, which takes up to six to eight hours to perform and requires deep hypothermia circulatory arrest. During the procedure, the surgical team uses special tools to gently loosen the clots, bit by bit, and remove them. Clots may extend from the main arteries into the smaller arteries of the entire lung.

“Age is not a comorbidity,” says Dr. Takeda, adding that he has operated on an 80-year-old woman who had a good outcome. However, patients with a higher body mass index, low preoperative hemoglobin levels, low ejection fraction, and low creatinine are more likely to develop acute kidney issues after the procedure, resulting in longer hospital stays and higher mortality rates.

The procedure is considered high-risk but is getting safer, says Dr. Takeda, and survival rates have improved. The one-year survival rate is now 92%, and the five-year rate is 88%. — *Brenda Lange*

*Columbia’s Pulmonary Hypertension Comprehensive Care Center, one of the largest in the country, offers advanced diagnostics and targeted medical treatments for children and adults with all types of pulmonary hypertension. Contact the center at (212) 305-4436.*

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## Treatment for Eosinophilic Esophagitis: Esophageal Sponge

In the late 1990s when eosinophilic esophagitis—EoE—was first described as a chronic, inflammatory disease of the esophagus, it was considered to be rare. Today, it’s known that up to 4 in 10,000 people worldwide have EoE, yet the average time for symptomatic patients to get a diagnosis is seven years.

“A lot of people and a lot of doctors still don’t think about this disease as a cause of swallowing trouble,” says gastroenterologist David Katzka, MD. “Many patients are told they have stress and anxiety, but there’s a very real reason why these people are feeling this way.”

Characterized by esophageal dysfunction and inflammation, EoE is triggered by an abnormal immune response to food and possibly environmental factors in the air, such as pollen or mold. People with EoE have large amounts of eosinophils—a

trait of allergic diseases—in their esophagus. Inflammation causes the esophagus to narrow, and patients have trouble with swallowing, food impaction, vomiting, chest pain, failure to thrive (particularly in children), and mental distress. EoE also can lead to fibrosis, intestinal barrier dysfunction, and other conditions.

Dr. Katzka, professor of medicine, has been studying EoE for nearly 25 years, propelled by struggling patients and a desire to learn more about the disease. He has pioneered the use of an esophageal sponge to identify EoE triggers and guide treatment. The sponge also takes the place of endoscopy and sedation in many EoE procedures and can be done in the office in just five minutes.

“EoE patients need many endoscopies, particularly when determining what is the best form of therapy for them,” says Dr.

Katzka. “They overwhelmingly prefer the sponge not only because it reduces risk but also because they don’t have to take a day off from work and arrange for people to pick them up.”

Until Dr. Katzka arrived at Columbia in 2021, no gastroenterologist in the tri-state area specialized in adult EoE. Now Columbia is one of only two places in the United States where EoE patients are offered the sponge for monitoring and is the only center in the tri-state area for adult patients. Dr. Katzka and his team work closely with allergists, nutritionists, and endoscopists to co-manage patients.

Because no cure exists for EoE, pediatric EoE patients are destined to become adult patients. The team created a pediatric-adult EoE transition program for kids with EoE.

— *Sara Pepitone*

Curtain Rises Again, This Time  
on Original Musical:

# “TOPEKA OR TO-NOT-PEKA”

By Christina Hernandez Sherwood



# Broadway Haven Players Dust Off Equipment for First Stage Production in Four Years

Photographs by Michael DiVito

**I**n the early hours of a Saturday morning last October, Pooja Sonikar, a second-year medical student, completed her exam on the gastrointestinal system, slept for a few hours, then headed to the Alumni Auditorium. She spent the rest of the day—and much of the night—designing stage lighting and sanding a custom-built bar that would be a key set piece in a new musical written, directed, produced, and performed by VP&S students.

A week later, the Broadway Haven Players, the student theater group, presented its first full-length, in-person stage production since early March 2020, when BHP staged “Much Ado About Nothing.” On opening night, Ms. Sonikar told the audience, “We have literally been dusting off equipment to use for our show.”

In its heyday, Broadway Haven Players—known as Bard Hall Players when it was established in the 1960s—put on three shows a year, typically a production of a well-known musical in the fall, a Shakespeare





By the end of a six-week playwriting course, the musical's writers had all but cast their show.

play in the winter, and a modern play in the spring. But the COVID-19 pandemic, along with struggles securing the rights to stage existing musicals, sidelined the group.

That is, until Ms. Sonikar received an email early in her first year at VP&S with news that Broadway Haven Players was looking for a director. A musical theater performer since she began acting in middle school to overcome stage fright, Ms. Sonikar eschewed the stage in college while preparing to apply to medical school. “When I got to medical school, I made a promise to myself that I would do musical theater again,” she says. “It’s a part of my identity that I left behind.”

Because of budget and time constraints—and a backlog in the process to get the rights to stage existing musicals—Ms. Sonikar and Broadway Haven Players president Michael Lahiff, also a first-year student at the time, decided they would write an original musical together. Mr. Lahiff, who studied music composition as an undergraduate, played several instruments and had experience as a pit orchestra musician.

In the spring of 2023, the two classmates enrolled in a playwriting course taught by Catherine Rogers, associate director of the Division of Narrative Medicine. The course fulfilled the students’ first-year requirement to complete a seminar in the humanities. Narrative medicine emphasizes the importance of story in medicine, Ms. Rogers says. “Patients don’t come in and say, ‘My BP is 120/80,’” she says. “They come in with a story about how they feel. The skills

it takes to read and analyze a story, to write a play, to take a good photograph, to look at a painting by Picasso: Those are not optional, but required, for skillful clinicians.”

During the course, Ms. Sonikar and Mr. Lahiff decided they weren’t writing a musical about medical school (“too on the nose”). Instead, conversations with their playwriting classmates encouraged them to craft a show that explored the universal themes of loss and grief, parent-child relationships, and friendship. But they didn’t avoid medicine altogether. Two characters in the musical, a father and a son, are significantly impacted by the medical illness and subsequent death of their wife and mother.

Creating a character in a play helps students imagine themselves walking in someone else’s shoes, a valuable skill for future doctors, Ms. Rogers says. She points to the nuanced characters of Russian playwright Anton



Chekhov, himself a medical doctor. “Every one of them has flaws. He creates whole people.”

The playwriting students were tasked with writing a 10-minute play (Ms. Sonikar and Mr. Lahiff drafted scenes from their musical), watching their classmates perform it, and revising it based on feedback. “It sounds a lot like rounds,” Ms. Rogers says. “It’s building teamwork, another strength you need as a clinician.”

Ms. Sonikar and Mr. Lahiff received more than critiques from their classmates: By the end of the six-week playwriting course, they had all but cast their show with peers. One classmate was cast as the lead, a young man who, having recently lost his mother and become estranged from his father, decides to follow his best friend from New York City to Kansas.

Writing continued into the summer, mostly in the evenings. Though they didn’t have classes, Mr. Lahiff

spent summer days working in a laboratory studying a chemical with the potential to reverse brain tumor growth, and Ms. Sonikar developed a quality improvement project for student-run clinics. Another VP&S classmate had connected them to a writing troupe composed of Princeton University alumni who served as consultants on the project and guided their progress over the summer.

By the fall, what started as the kernel of an idea for a stage show had become “Topeka or To-Not-Peka,” a modern coming-of-age story that follows two friends on their adventures, and misadventures, in the rural Midwest. Over two-and-a-half hours, and through many sweeping musical numbers, the main characters and supporting cast find themselves accidentally buying a failing business, becoming entangled in a bisexual love triangle, and coming to terms with a debilitating mental health condition.

**"TOPEKA OR TO-NOT-PEKA"**







For two months, the cast and crew of about 30 students, mostly medical students, met for three two-hour rehearsals each week, with occasional schedule changes to accommodate second-year exams. Ms. Sonikar was director, and Mr. Lahiff was composer and musical director. The rest of the cast included actors, choreographers, musicians, producers, and crew members.

One of the producers was Peter Calvaresi, a fourth-year medical student who had joined Broadway Haven Players in the fall of 2021, when the group was preparing to stage the musical “Legally Blonde.” But a week before showtime, the cast learned that the production had been canceled because the group hadn’t received the rights to perform it. In an attempt to salvage the hours they had devoted to rehearsing for the show, several cast members performed songs from the musical at Coffeehouse, a VP&S Club open-mic style gathering that showcases the musical, spoken word, comedic, and kinesthetic talents of students from across the medical center.

For Mr. Calvaresi, “Topeka or To-Not-Peka” was a rare chance to revive the VP&S theater group. “I wanted to see this community continue to exist on campus, and hopefully one day thrive again,” he says. “Med school is obviously a very stressful time. Broadway Haven Players is a great way to have that outlet of creative expression when the rest of our days are math and science and sometimes sad cases in the hospital. You use a different part of your brain, and your heart.”

Despite Ms. Sonikar’s worries about dusty, long-unused equipment, opening night on Friday, Oct. 27, went off practically without a hitch. At curtain call, the cast was met with a standing ovation. But the most rapturous cheers came when Ms. Sonikar and Mr. Lahiff

stepped onstage to accept floral bouquets from their beaming cast and crew. Then they did it all again the next night.

“Everyone dedicated themselves to this product that we made,” Mr. Lahiff says. “I’m getting chills thinking about the work so many people had to do to make this thing happen.”

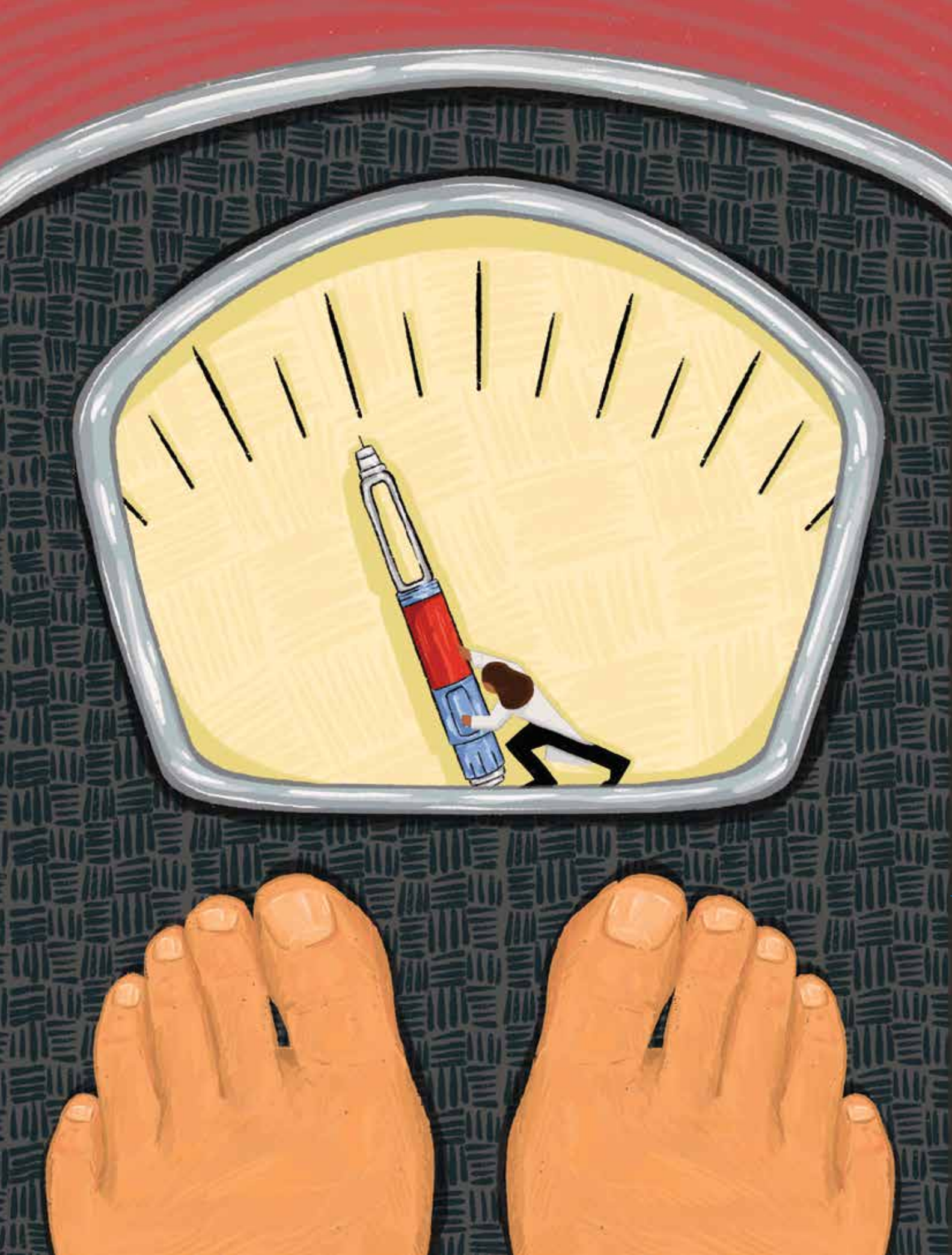
Although the curtain has come down on their Fall 2023 performances, Ms. Sonikar and Mr. Lahiff say they aren’t finished with “Topeka or To-Not-Peka.” The pair is drafting a submission to JAMA’s Arts and Medicine section about their experience on the show, emphasizing the importance of creative outlets in medical education.

“Staying in touch with the arts keeps us human,” Ms. Sonikar says. “It’s very easy to reduce a person to lab values and forget about the person behind that story and to forget about the impact a provider can have on a person’s narrative. A doctor’s visit can change your entire life course.”

There’s also talk of recording a cast album—a Columbia dental student offered the use of the recording studio he has on a bus—and perhaps one day performing the show again.

“The show meant a lot to us, but it also meant a lot to our classmates,” Ms. Sonikar says, as the production offered the students an opportunity to trade the rigors of medical school for the rigors of creating musical theater as well as a reprieve from more global concerns, such as the Israel-Hamas War. “One of our cast and crew members said, ‘The show saved my mental health.’” ❖

“Med school is obviously a very stressful time. Broadway Haven Players is a great way to have that outlet of creative expression when the rest of our days are math and science and sometimes sad cases in the hospital.”



**B**y the time they visit her office, patients of Judith Korner, MD, PhD, often feel like they have tried everything to lose weight. The endocrinologist and founding director of the Columbia Metabolic and Weight Control Center sees people who have hundreds of pounds to lose, who cannot walk without assistance, and who have been denied vital surgeries and organ transplants because of their weight.

Dr. Korner uses prescription weight loss drugs to help these people manage their obesity and associated health challenges. Until recently, however, she and her colleagues had few prescription options, and the drugs that were available were effective only in a small percentage of people.

“Over the years, we’ve had patients who try numerous medications but don’t lose an ounce,” says Dr. Korner. “It’s only in the last couple of years that we suddenly have new medications that can really help the majority of our patients.”

Those new medications, of course, are those in the same class of drug as the uber-popular Ozempic, which sends a constant “I’m full” signal to the body, mimicking molecules usually made by the body after a meal. Clinical trials have shown that people taking these drugs consistently for a year and a half lose, on average, about 15% to 20% of their body weight. Prescriptions for Ozempic-

like drugs have skyrocketed in recent years. Wegovy—the same medication as Ozempic but dosed for weight loss rather than diabetes—was approved by the FDA in 2021. It was followed by Zepbound, a weight loss formulation of the diabetes drug Mounjaro, in 2023.

For clinician-scientists like Dr. Korner, the new drugs offer not only a transformation in how they can treat their patients but also a validation that basic research into the biology of obesity has clinical benefit.

“The success of these drugs has reassured the public that obesity really is a biological issue that can be treated with pharmaceutical compounds,” says researcher Rudolph Leibel, MD. “It’s a huge step in the right direction for obesity treatment, but we also still have a lot of work to do.”

Dr. Leibel directs the New York Obesity Research Center, which was founded at Columbia in 1980, making it the oldest NIH-funded obesity research center in the country. Through the shared resources of the center, researchers, including Dr. Korner and Dr. Leibel, are striving to better understand exactly what happens in the body and brain when people gain or lose weight. They ultimately hope to develop next-generation weight loss drugs that build on the success of Ozempic but with fewer side effects and more customizable options for individual patients.

“With obesity, I don’t think there will ever be a one-size-fits-all approach,” says Dr. Korner. “There are really

# Weight Loss Drugs: Progress But Not Far Enough

Columbia researchers investigate the molecular and neurological aspects of obesity and appetite in hopes of developing next-generation weight loss drugs

By Sarah C.P. Williams

Illustration by AJ Golladay

Photographs by Jörg Meyer

## Weight Loss Drugs: Progress But Not Far Enough

complex, diverse factors influencing the development of obesity and I think there will be diverse, personalized medications.”

### The Path to a Miracle Drug

When you’ve just eaten a meal, your body responds with a precise choreography of molecular steps: Signals in the form of hormones zip through your bloodstream to your brain, pancreas, liver, intestines, and fat cells. You feel full and lose the desire to eat more, and your body takes advantage of the rush of nutrients it has received.

In the early 1970s, researchers discovered that one of these hormones, GLP-1, had powerful effects on blood sugar and insulin levels. This makes sense since after a meal, the body needs insulin to break down the sugars rushing into the body. This discovery led to

**Studies have shown that in healthy people, 5% or 10% of the cells within fat tissue are immune cells; in patients with the most severe degree of obesity, however, more than half the cells in fat tissue are immune cells, and they trigger constant inflammation.**

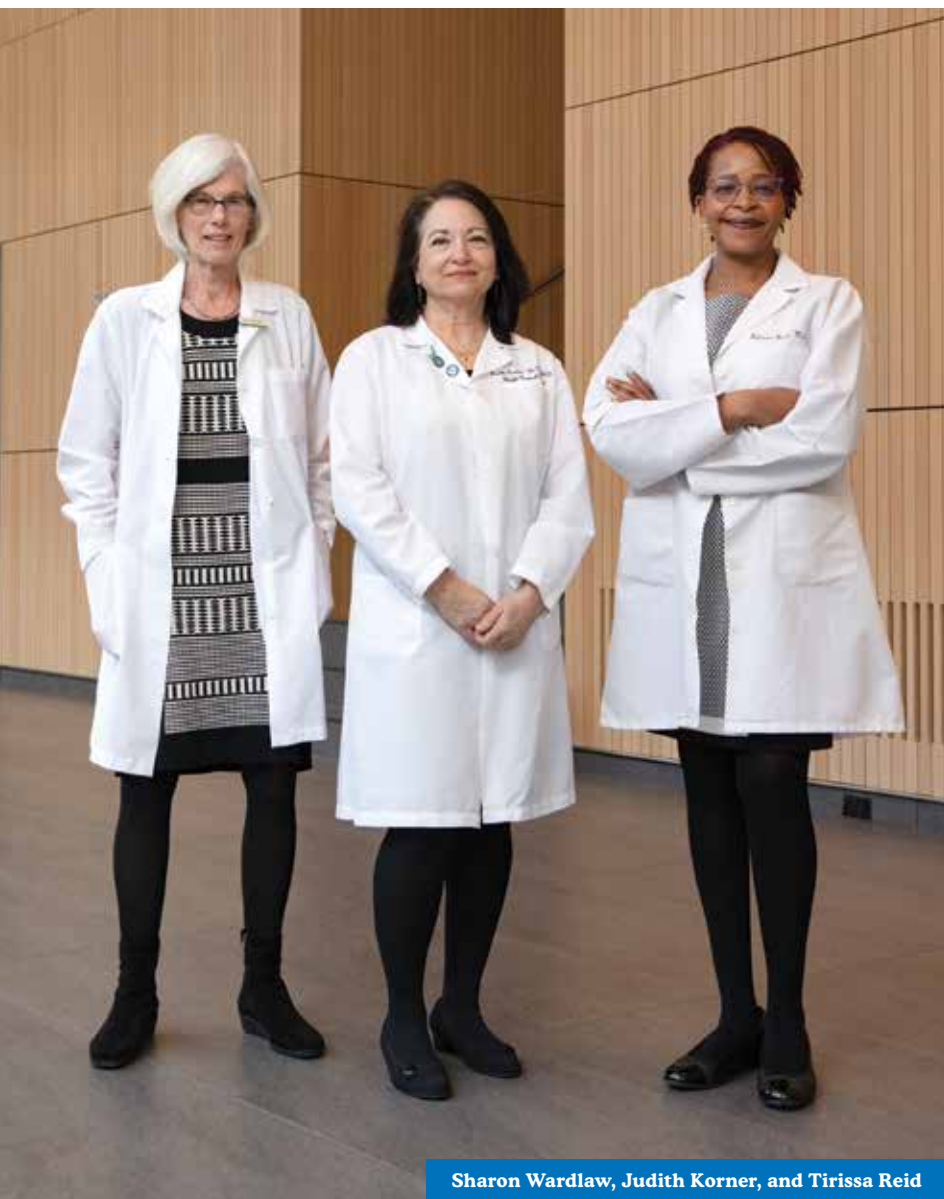
the development of Byetta (exenatide), which used an engineered, long-lasting version of GLP-1 to treat diabetes. In the early part of the 21st century, Byetta and its successors, including Trulicity and Ozempic (semaglutide), were successful in controlling blood sugar levels in people with type 2 diabetes, the most prevalent form, but clinicians also noticed something else: People taking these drugs often lost a lot of weight.

While it increased insulin levels, GLP-1 also made people feel full and slowed the emptying of their stomach, other natural reactions to the “I just ate” signal sent by the hormone. In 2021, the FDA approved semaglutide as a weight loss drug for adults with a high BMI even if they didn’t have diabetes. After Wegovy, the version of Ozempic formulated and marketed for weight loss rather than diabetes, was approved, a flurry of other drugs targeting additional gut hormones came onto the market. The new medications not only were more effective than previous weight loss drugs, but also garnered vastly more public attention.

“There have been weight loss medications available in the past but it’s almost like no one knew they existed,” says Tirissa Reid, MD, associate director of the Metabolic and Weight Control Center. “Now there is this huge hype around drugs like Ozempic and Wegovy. That hype has both positives and negatives.”

The new drugs carry side effects that can be quite severe, and researchers have numerous questions about their effects on the body and their long-term use. Some who take the drugs experience nearly constant nausea and others develop rarer complications like gallbladder or pancreas disease.

“We’ve had at least two patients in our clinic who are taking these drugs and have ended up in the emergency room because of uncontrollable vomiting, diarrhea, dehydration, and abdominal pain,” says Dr. Korner. “While I



Sharon Wardlaw, Judith Korner, and Tirissa Reid

think these drugs are amazing, they're not easy to use for many people.”

What's more, the drugs aren't always effective. In initial studies of semaglutide, participants lost an average of 15% of their body weight over the course of more than a year. If someone who weighs 300 pounds loses 15% percent of body weight, that person still weighs 255 pounds, obese for people of most heights. Half of all participants lost less weight, with around three in every 20 people losing less than 5% of their body weight.

These downsides and limitations of the new drugs are adding incentive to obesity researchers at Columbia to pursue other options. If they can understand the complex interplay of obesity, appetite, metabolism, inflammation, mood, and genetics, they may be able to find new and better ways to provoke weight loss.

### The Monotony of Maintenance

While losing weight can seem like a daunting task, maintaining the same body weight ends up being harder for many people. That is true with the new generation of weight loss drugs.

Within a year of stopping Wegovy, most people will regain about two-thirds of the weight they lost on the drug, according to a 2022 study by the drug manufacturer. Similarly, people who took Zepbound (tirzepatide) for a year lost about 20% of their body weight but regained about 15% after a year off the drug.

That is in part because the human body is programmed to fight weight loss. In the 1980s, Dr. Leibel contributed to the discovery of leptin, a hormone secreted from fat cells and intricately linked to hunger and fullness. When someone loses fat, leptin levels drop and the body responds with increased hunger, a slower metabolic rate, and even changes to the brain that make food look more enticing.

“The body perceives fat loss as a threat to survival,” says Dr. Leibel. “And lower leptin levels signal the brain to eat more and expend less energy to rectify this threat.”

Weight loss drugs like Wegovy do not change this response to fat loss; people who want to continue feeling the loss of appetite induced by the drugs need to keep taking them. As soon as they stop the drugs, low leptin levels drive increased hunger and lower energy expenditure that promote weight regain. That means that the drugs either must be taken for life—like blood pressure and diabetes drugs—or other drugs will need to be developed to promote weight maintenance.

In a large new study, Dr. Leibel and colleagues at Columbia are following more than 100 people to try to understand why, after



Rudolph Leibel and Anthony Ferrante Jr.

initial weight loss, some people have an easier time keeping weight off while others quickly gain it back. They suspect factors other than just leptin are at play.

“The idea is that whatever we discover about the physiology of weight regain will, hopefully, be directly applicable to trying to prevent or mitigate that weight regain,” says Dr. Leibel.

Ironically, it can be just as hard to gain weight as to lose it. If you ask a healthy, lean person to gain a hundred pounds, they might gain the first 10 or 20 pounds easily but then struggle to keep eating as their appetite decreases over time, says Anthony Ferrante Jr., MD, PhD, chief of preventive medicine and nutrition and co-director of the Naomi Berrie Diabetes Center.

“Regardless of whether you're lean or obese, you generally stay within the same weight range in any given year,” says Dr. Ferrante. “The human body has this seemingly magical and mysterious way of matching your energy input and output without you having to think much about it.”

In 2018, Dr. Ferrante discovered that healthy mice fed extra food gradually eat less and less, and the effect is completely independent of the leptin levels in their body. He suspects that an

## Weight Loss Drugs: Progress But Not Far Enough

undiscovered hormone acts in opposition to leptin, fighting weight gain in the same kind of way that leptin fights weight loss.

“If we can identify this hormone, it may be very therapeutically beneficial,” says Dr. Ferrante. “We don’t think it would make you feel nauseated or completely turned off by food. Instead, it would be like a healthy person who eats a lot over the holidays but doesn’t end up permanently gaining weight. Their body subtly adapts, speeding up their metabolism and makes them a bit less hungry.”

### A Focus on the Brain

Dr. Ferrante’s belief in a still-to-be-discovered hormone mediating metabolism shows just how much is still unknown about how the human body regulates food and weight. Today, in addition to studying what puts the brakes on weight gain, Dr. Ferrante’s lab studies the role of the human immune system in obesity. His studies have shown that in healthy people, 5% or 10% of the cells within fat tissue are immune cells; in patients with the most severe degree of obesity, however, more than half the cells in fat tissue are immune cells, and they trigger constant inflammation. Much is still unknown about how this inflammation may impact the rest of the body, but ultimately, all the systems in the body that play a role in metabolism and appetite are tied together in one place: the brain.

This is especially clear when patients with obesity undergo bariatric surgery. After the surgery, they are not only limited in what they eat because of physical changes to their stomach, but also have a reduced appetite. Recently, Dr. Korner began studies of how these patients’ brains change after surgery.

“I had a patient a number of years who said to me, ‘I know they operated on my abdomen but I feel like they operated on

my brain,’” Dr. Korner recalls. “If we can understand why this happens for some patients, perhaps we can mimic it with a drug.”

Equally as important as the physiological aspects of obesity and appetite are the emotional and psychological ones. “Stress always impacts eating behavior, one way or another,” says Lori Zeltser, PhD, a

**“Stress always impacts eating behavior, one way or another. Why the same stresses cause some individuals to eat more while others lose their appetites is still elusive.”**

researcher in the Naomi Berrie Diabetes Center. Using mouse models, Dr. Zeltser confirms what is already known: Severe stress, like losing a loved one, almost always results in loss of appetite. But what about more mild stress like a looming deadline or holidays with the in-laws? “Why the same stresses cause some individuals to eat more while others lose their appetites is still elusive. Uncovering the brain circuits regulating these opposing responses is a major focus of our lab.”

Dr. Zeltser has spent the past few years developing mouse models that reliably change how much they eat when under stress. Now, her lab is probing what cells and molecules in the brain make that happen. Her eventual goal is to find ways to manipulate those brain pathways, with implications for treating both obesity and anorexia.

“I hope the next generation of drugs can manipulate appetite and metabolism in ways that have fewer side effects throughout the body,” says Dr. Zeltser.

Similarly, Sabrina Diano, PhD, who directs the Columbia Institute of Human Nutrition, is taking a new angle to studying obesity, with the ultimate goal of drug development. Dr. Diano discovered that when mice eat a diet high in both carbohydrates and fat, immune cells in the brain get activated before nearly any other change in the body. She wants to know what triggers this change and whether altering it could treat obesity in humans.

“I want to know how the brain senses fats and sugars, how this affects brain cell function, and how that then affects whole-body metabolism,” says Dr. Diano.

### Personalizing Weight Loss

For physicians at the Metabolic and Weight Control Center and elsewhere, finding the right weight loss drug for their patients can require many months of trial and error. If dozens of new drugs emerge in coming years, that trial and error could become even more drawn out—unless research also moves forward on how to choose the best drug for each patient.

“Right now, we try the same kinds of drugs for most patients, and we can’t predict who is going to respond and who won’t,” says Sharon Wardlaw, MD, director of the neuroendocrine unit in the Department of Medicine.

### Who’s Who

- Sabrina Diano, PhD, the Robert R. Williams Professor of Nutrition professor of physiology & cellular biophysics (in molecular pharmacology & therapeutics and in the Institute of Human Nutrition) and director of the Institute of Human Nutrition
- Anthony Ferrante Jr., MD, PhD, the Tilden-Weger-Bieler Professor of Preventative Medicine, chief of preventive medicine and nutrition, and co-director of the Naomi Berrie Diabetes Center
- Judith Korner, MD, PhD, professor of medicine and director of the Columbia Metabolic and Weight Control Center
- Rudolph Leibel, MD, the Christopher J. Murphy Memorial Professor of Diabetes Research and professor of pediatrics and medicine and director of the New York Obesity Research Center
- Tirissa Reid, MD, associate professor of medicine and associate director of the Metabolic and Weight Control Center
- Sharon Wardlaw, MD, the Robert C. and Veronica Atkins Professor of Obesity Research (in Medicine)
- Lori Zeltser, PhD, professor of pathology & cell biology

Dr. Wardlaw, also a member of the New York Obesity Research Center, has collaborated with Dr. Korner to learn why certain weight loss drugs work better for some people and how to predict that ahead of time. In one study, they showed how different versions of a gene explain why some people lose weight on Contrave, an antiobesity drug approved by the FDA in 2014. They also discovered that brain proteins known to regulate body weight are present in the spinal fluid and that their levels can predict who is most likely to lose weight on Belviq (lorcaserin), a weight loss drug that was withdrawn from the market in 2020.

“There are real biological differences in terms of how people’s bodies respond to these different drugs,” says Dr. Wardlaw. “Two patients with breast cancer might get completely different treatments because of the molecular characteristics of their tumors, and I think that’s where the field of obesity treatment is heading as well.”

Dr. Korner and Dr. Wardlaw hope to apply some of their studies of Contrave and Belviq to the newer generation of weight loss drugs, including semaglutide, to pin down whether genetic or molecular differences in patients could guide treatment approaches.



Sabrina Diano and Lori Zeltser

### Access for Everyone

At the Metabolic and Weight Control Center, Dr. Reid says, about 40% of the prescriptions she writes for weight loss drugs are denied by patients’ insurance.

“It’s incredibly frustrating,” she says. “We’re not treating patients who want to lose five pounds for a wedding. These are people who are dealing with significant extra weight and often have other medical conditions and risks related to it.”

Obesity is a major contributor to diabetes, hypertension, dyslipidemia, and cancer. “Even modest weight reduction reduces the first three and probably cancer as well,” says Dr. Leibel. “This alone is rationale for increasing access to effective drugs.”

Today, Medicaid and Medicare, as well as many private insurance plans, do not cover weight loss drugs for obesity alone, which is considered a cosmetic issue, although insurance covers many of the same drugs to treat diabetes. One of her patients, Dr. Reid says, weighs more than 500 pounds and has a variety of health issues including severe reflux, high cholesterol, and sleep apnea, but not diabetes. His insurance denied coverage of Wegovy.

Since the drugs cost about \$1,000 per month, most people cannot afford the out-of-pocket cost.

The New York Times reported last year that prescriptions for Ozempic and similar drugs were highest in New York’s wealthiest and whitest neighborhoods. Dr. Reid suspects those inequities largely stem from the cost and poor insurance coverage of the drugs but could also relate to other challenges in treating obesity. People with lower socioeconomic status tend to have less access to primary care medicine and, when they do seek health care, they often have more urgent issues to deal with, leaving little time to discuss weight loss.

These inequities, researchers stress, are another reason that more effective and diverse weight loss drugs, like those in the basic research pipeline at Columbia, are needed. The more evidence-based drugs exist, the more likely policies can help promote insurance coverage and price caps. Drugs with fewer side effects and clearer prescription guidelines also can make it easier for physicians who do not specialize in obesity medicine to prescribe the drugs and quicker for patients to find the right drug.

“We’re just at the tip of the iceberg,” says Dr. Reid. “We have just a few prescription obesity drugs now, which pales in comparison to the hundreds of hypertension or cholesterol drugs that exist. We need to keep growing the armamentarium so we can help more patients.” ❖







# LEGACY UNFULFILLED

**Rh Disease,  
Mostly  
Eradicated  
At Home,  
Persists  
Worldwide**

**O**ver the past four decades, transfusion medicine specialist Steven Spitalnik, MD, has helped care for hundreds of obstetric patients with Rh incompatibility, an immunological mismatch between maternal and fetal blood types that can lead to blood group sensitization, pregnancy loss, newborn death, or severe disability. Yet at NewYork-Presbyterian/Columbia, where Dr. Spitalnik has been a member of the medical staff since 2003, he sees few cases in which the incompatibility progresses to clinically significant Rh disease.

As in other high-income countries, Rh disease in the United States was largely eliminated before Dr. Spitalnik graduated from college. Credit for the advance owes to groundbreaking work in the 1960s by a Columbia obstetrician, Vincent Freda, MD, and a pathologist, John Gorman, MD, director of the blood bank at NYP/Columbia, working with William Pollack, PhD, chief research scientist at Ortho Pharmaceuticals. Together, they developed RhoGAM, a plasma-derived product that prevents Rh disease. The FDA approved RhoGAM in 1968; its brisk and near-total uptake in the United States has

since spared approximately 10,000 babies each year from profound disability and death.

## **A Global Burden**

Today, the Italian pharmaceutical company Kedrion owns rights to RhoGAM, now one of several Rh disease prevention formulations collectively known as “anti-D immunoglobulin.” In anticipation of RhoGAM’s 50th anniversary in 2018, pharma executives approached Dr. Spitalnik, who was then medical director of the clinical laboratories at Columbia and NYP, to host a celebration. The panel discussion that resulted included Dr. Gorman and experts from across the United States and around the world.

“What I learned, to my dismay and embarrassment,” says Dr. Spitalnik, “was that this problem may have been solved in the U.S. and Western Europe, but in many countries there is no access to anti-D. There are economic issues, education issues, and awareness issues among health care providers, government ministers and other policymakers, and patients. It’s disappointing that 50 years after this problem was solved in the U.S. there are many places in the world where it’s not solved.”

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Vincent Freda, left,  
and John Gorman

By Sharon Tregaskis



At Dr. Spitalnik's request, Kedrion supported Columbia in hosting an international academic conference on Rh disease in late 2018 to address this global health problem. Scholars from Canada, Italy, the Netherlands, Russia, Great Britain, and the United States briefed one another on the global variety of clinical protocols for detecting Rh-incompatible pregnancies and the array of dosing schedules for administering anti-D. "We said we should put together an organization," says Dr. Spitalnik, "and see what we can do to make sure women around the world have access to this life-saving drug."

Dr. Spitalnik, professor of pathology & cell biology and former executive vice chair for laboratory medicine for the Department of Pathology & Cell Biology, now serves as founding executive director of the resulting 501c3 nonprofit: WIRhE, the Worldwide Initiative for Rh disease Eradication. "The first thing we did was identify the scope of the problem," says Dr. Spitalnik. In 2020, PLOS ONE published the group's preliminary analysis. The most rigorous public health protocols were effectively eliminating 99% of Rh disease burden in countries like the Netherlands and Denmark, they found. By estimating the annual number of Rh-incompatible pregnancies worldwide and comparing that figure with the total number of doses of anti-D administered annually, the group found a significant opportunity for intervention.

"Our results suggest that approximately 50% of the women around the world who require this type of

ties such as cerebral palsy and hearing loss. In many parts of the world, the inability of affected women to carry pregnancies to term carries a deep shame and stigma, compounding the grief of pregnancy loss with divorce and economic disenfranchisement. "Anything that I can do to improve health care for women, particularly pregnant women, is personally important to me," says WIRhE deputy director Brie Stotler, MD, chief of transfusion medicine and cellular therapy in the Department of Pathology & Cell Biology and associate professor of pathology & cell biology. "The world has never realized or has forgotten how vulnerable people are when they're pregnant."

### The Rh Factor

Contemporary transfusion medicine recognizes over 300 antigens whose mismatch has the potential to trigger a hemolytic transfusion reaction, in which a recipient's immune system destroys donated blood products. In the early days of transfusion medicine, however, clinicians focused primarily on blood group chemistry—the ABO prefix of modern blood typing introduced in 1900.

Scientists discovered the Rh factor in 1940 in the aftermath of an obstetric blood transfusion gone wrong. The woman's case revealed that a novel antigen on the surface of the red blood cells donated by her husband, who was ABO-compatible, was implicated in her hemolytic transfusion reaction. The same factor, dubbed Rh antigen D, was implicated in the death of her stillborn infant.

The burgeoning fields of transfusion medicine and blood banking promptly implemented strict blood typing and matching standards to segregate Rh-positive and Rh-negative blood, the plus and minus suffix now commonly associated with each blood type. Yet Rh-incompatible pregnancies remained at risk.


Approximately 15% of the population in the United States, Canada, and western Europe are Rh-negative. If these women become pregnant with an RhD-positive fetus, they can be exposed to small amounts of the RhD protein when fetal blood crosses the placenta during pregnancy and at delivery.

On first exposure to RhD-positive blood—whether through ectopic pregnancy, miscarriage, abortion, delivery, prenatal testing, antenatal fetal-maternal hemorrhage, trauma, or contaminated needles—an adult's immune system can muster a form of anti-RhD antibodies known as immunoglobulin M (IgM). Although these IgM antibodies can obliterate, for example, the fetal red blood cells circulating

**"We don't need to do the science to show that anti-D immunoglobulin works. We need to figure out how to implement that treatment everywhere."**

immunoprophylaxis do not receive it, presumably due to a lack of awareness, availability, and/or affordability, thereby putting hundreds of thousands of fetuses and neonates at risk for Rh disease each year," the authors wrote. "The global failure to provide this generally acknowledged standard of care to prevent Rh disease, even 50 years after its availability, contributes to an enormous, continuing burden of fetal and neonatal disease and provides a critically important challenge to the international health care system."

An epidemiological analysis published by the journal *Pediatrics* in 2013 calculated the annual human costs of preventable Rh disease worldwide at 160,000 fetal and neonatal deaths and 100,000 cases of lifelong disabili-



in the adult's bloodstream, they can't cross the placenta. Thus, whether the mother becomes immunized during or after her first Rh-incompatible pregnancy, her first-born Rh-incompatible infant is typically spared the symptoms of Rh disease.

Once primed by that initial exposure, however, the adult's immune system makes immunoglobulin G (IgG). This immune response lasts virtually forever, remaining on high alert for RhD, ready to muster these IgG antibodies to attack the proteins; these adults are now fully "sensitized" to RhD.

The viability of future pregnancies hangs in the balance. Thus, when a sensitized woman becomes pregnant with another Rh-positive fetus, the IgG antibodies can cross the placenta to attack the fetus's red blood cells inside the womb. Depending on the timing and intensity of the parent's immune reaction, outcomes can range from a temporary case of jaundice in the newborn to fetal complications so severe that the pregnancy ends within the first few months.

### An Ounce of Prevention

In a series of experiments published from 1964 to 1967 by *Science*, *JAMA*, and the *New England Journal of Medicine*, Drs. Freda, Gorman, and Pollack showed that they could prevent Rh disease by interrupting the process of immune sensitization. Dr. Gorman has credited a textbook he encountered in 1959, as a resident in clinical pathology at Columbia, with sparking the team's approach. "The presence of circulating antibody, whether produced actively or received passively, depresses and may completely inhibit the immune response to the relevant antigen," he read in Lord Howard Florey's "General Pathology."

Dr. Gorman had seen the devastation and death caused by Rh disease while working in pediatrics at a hospital in the South Bronx before starting a pathology residency at Columbia. "Well, I knew in five minutes after I read that, that this would stop the Rh antibody," Dr. Gorman told a news outlet in his native Australia in 2022. "If we gave the mothers Rh antibody, they would not make any themselves."

Yet Rh antibody was precisely what was killing fetuses and newborns with Rh disease. "There was immediate pushback and skepticism from pretty

much the entire blood banking community at the time," Dr. Gorman recalled in 2018 during the RhoGAM celebration at Columbia. Yet Dr. Freda had the full backing of Columbia's obstetrics department, Dr. Pollack found significant financial support from Ortho, and the team continued its investigation.

The trio of scientists went on to isolate anti-D immunoglobulin from the blood plasma of sensitized donors and showed that it could successfully prevent RhD sensitization—first in Rh-negative male volunteers, then in Rh-negative female volunteers, and finally in Rh-negative women who had just given birth to an Rh-positive baby. In each case, passive immunity induced by the anti-D injection prevented Rh sensitization.

Near-simultaneous publications by teams in England and Canada confirmed the approach. Introduction of this approach into clinical use was brisk



JORG MEYER

Steven Spitalnik

in countries where blood banking, prenatal blood typing, and hospital births were most advanced. To address the small number of cases in which sensitization happens before delivery, the U.S. standard of care since the late 1970s has included prenatal anti-D immunoglobulin injections for all Rh-negative obstetric patients, as well as a postnatal injection if cord blood testing indicates that the newborn is, indeed, Rh-positive. In 1980, Dr. Freda, Dr. Gorman, and Dr. Pollack—along with two English investigators—were collectively awarded the Albert Lasker Clinical Medi-

cal Research Award for their efforts to illuminate the genetics of the Rh factor and for directing essential research into hemolytic disease of the newborn.

### A Wicked Problem

Worldwide access to Rh prophylaxis constitutes what engineers know as a “wicked problem.” A term coined in the 1970s, the problem represents the apex of social and technical complexity—solving climate change, for example, or eliminating world hunger. Each stakeholder understands the issue and what might constitute its successful resolution differently. Such problems lack a definitive formulation, occupy an open-ended timeline, and resist simplistic cause-and-effect analyses.

WIRhE team members, in other words, have their work cut out for them. The good news, says Dr. Spitalnik, is that the groundwork has been laid. “We don’t need to do the science to show that anti-D immunoglobulin works,” he says. “We need to figure out how to implement that treatment everywhere.”

As a frame of reference, consider the overlapping protections against RhD sensitization in the United States, says Dr. Stotler. Here, most people don’t know their Rh status, and they don’t need to. “Our system is set up on autopilot to prevent Rh disease. If you become pregnant, you have blood work during your first prenatal appointment. Your providers know at six or eight weeks whether you’re Rh positive or negative and give you the treatment if you need it. The patient doesn’t need to ask for it.”

Transfusion medicine worldwide is relatively streamlined due to centralized requirements for manufacturing, testing, storing, and distributing blood products. In contrast, pregnancy and childbirth vary wildly. Ideally, an RhD-negative person carrying an RhD-positive fetus would receive both antenatal and postnatal anti-D. “That requires a person going to medical care when they’re pregnant,” says Dr. Stotler. “In some places, women are not even going to a hospital to deliver. They might not have access to a hospital. To give this drug two to three times, you have to have the infrastructure for the pregnant woman to present for that care.”

Worldwide, additional barriers exist, depending on the state of local health care



Brie Stotler

JORG MEYER



access, practice, documentation, and reimbursement. In some low-income countries, for example, blood typing and detailed medical records are fairly uncommon. Awareness among patients of their need for anti-D injections is low and they may pay as much as two months' wages to private pharmacies for a single dose. Furthermore, the incidence of Rh-negative status varies widely, so interest among public health advocates and government officials also varies. In Madagascar, just 1% of the population is Rh-negative, while in Ethiopia, the prevalence is 15%. In northern Africa and the Middle East, prevalence ranges from 6% to 13%. In China, while only 0.5% of adults are Rh-negative, disease burden remains high due to the country's huge population and shifting emphasis from a one-child policy to encouragement for larger families. Families there do not have access to anti-D, however, because of import restrictions on blood products and a lack of local production in-country.

#### **A Leveraged Approach**

WIRhE is an all-volunteer consortium with a shoestring budget; consortium members pursue external funding for their Rh-related work, whether research or implementation. Dr. Spitalnik and Dr. Stotler each put in a few hours each week. "Mostly," says Dr. Spitalnik, "we support one another with enthusiasm, editing, and reviewing funding proposals for research and implementation projects." Still, WIRhE remains a potent force, in large part due to the global network members are cultivating.

For example, Dr. Spitalnik serves on the African Initiative for Rh Eradication (AFRICARhE), a partnership among hospitals in Ethiopia, Malawi, and Tanzania with scientists in the Netherlands. The team is testing a shelf-stable, point-of-care blood test to assess Rh-negative prevalence. The team also is documenting Rh disease burden, implementing screening and prophylaxis protocols, and planning to evaluate a monoclonal anti-D preparation formulated in India that is not approved in the United States or Europe but is widely used in Africa and India.

In 2023, the journal *Transfusion* published an abstract describing a public health analysis of the state of care in Mexico by Dr. Spitalnik, Dr. Stotler, and WIRhE collaborators. While the 11-question survey the collaborators sent to every obstetrician in the country revealed significant variations regarding testing for Rh-incompatibility, as well as availability and delivery of anti-D immunoglobulin, the investigators saw cause for hope. "We think Mexico may be a par-

ticularly good place where we can make a difference," says Dr. Spitalnik, who is pursuing funding for an implementation study that analyzes patient acceptance and physician practice across regions of Mexico that differ economically, ethnically, and in terms of religiosity. "Every OB in Mexico reports through a series of administrative bodies to a director for the whole country, and he was one of our coauthors on the survey."

**"RhoGAM has turned out to be by far the most cost-effective drug ever produced."**

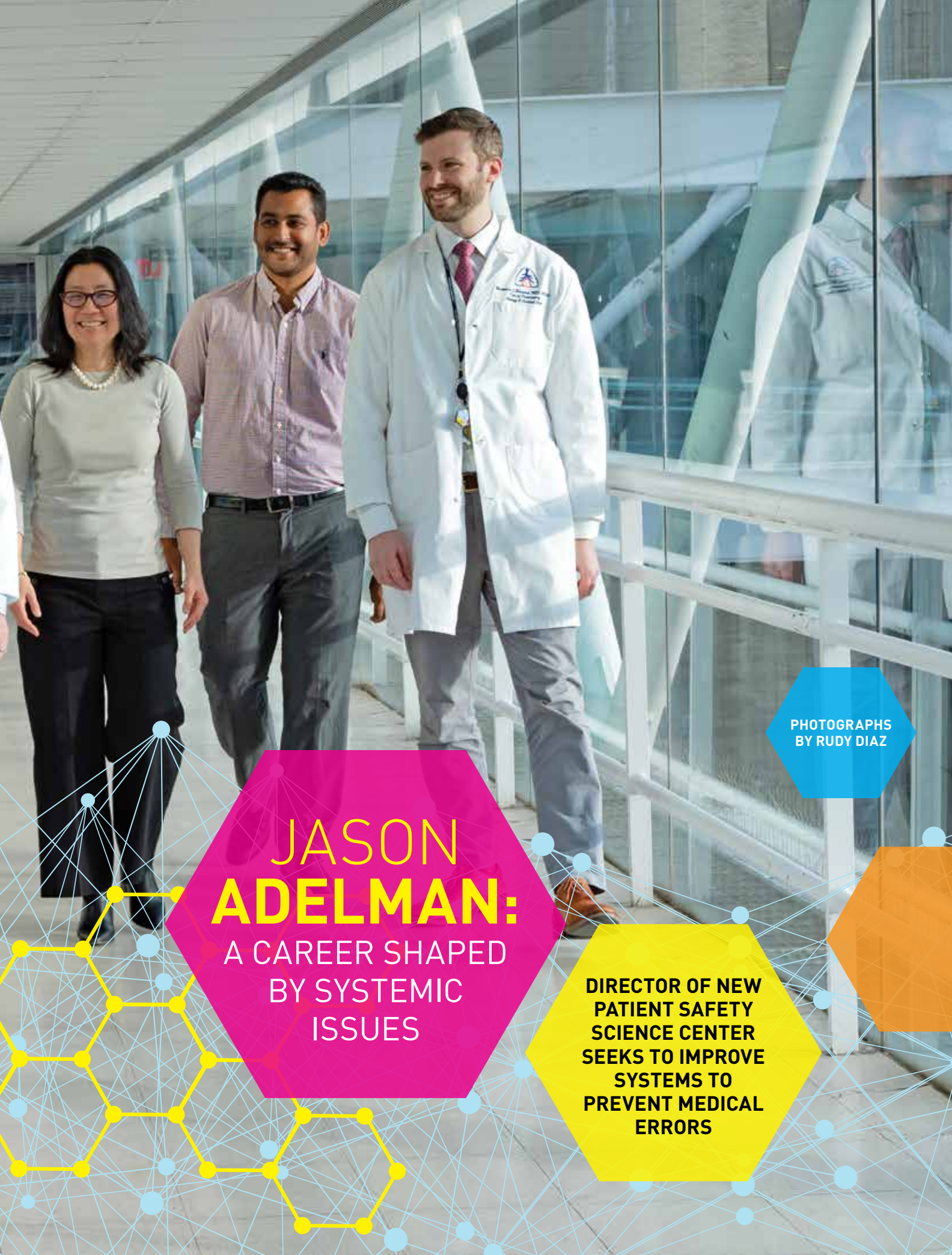
In Pakistan, WIRhE collaborators have multiple efforts underway, including peer-to-peer patient education and outreach, training programs for public health workers and traditional birth attendants, and an implementation study showing the efficacy of the same shelf-stable point-of-care blood test being evaluated in the AFRICARhE study.

And Dr. Gorman is doing his part while in his 90s and living in retirement in California. He prefers to leave history in the rear-view mirror. "I don't want to talk about the '60s. I just want to talk about the future." The future, from his vantage point, is the imperative for WIRhE to raise approximately \$250 million annually for testing and for providing anti-D injections to prevent maternal RhD sensitization worldwide.

As the holder of multiple global patents for intellectual property relevant to novel techniques for total lab automation in the fast-growing \$230 billion clinical laboratory industry, Dr. Gorman sees promise in a business plan he's developed dubbed "Prometheus" to commercialize his intellectual property and apply the royalties to WIRhE's international work. He believes that these patents can be the nucleus of a unique financial opportunity—that the patents will enable a very select partnership of five Fortune 500 companies, acting in their own commercial interests, to generate future royalties with more than enough present discounted cash flow value to fund WIRhE completely and immediately.

In the meantime, Dr. Gorman has no doubts about the value of anti-D immunoglobulin for global health. "RhoGAM has turned out to be by far the most cost-effective drug ever produced," says Dr. Gorman. "That's because more than 75 quality-adjusted life years are gained for each of the hundreds of thousands of babies that have been saved since 1968. I still marvel at how such a low-tech idea could have such a huge, huge, huge payoff." ♦





PHOTOGRAPHS  
BY RUDY DIAZ

**JASON  
ADELMAN:**  
A CAREER SHAPED  
BY SYSTEMIC  
ISSUES

**DIRECTOR OF NEW  
PATIENT SAFETY  
SCIENCE CENTER  
SEEKS TO IMPROVE  
SYSTEMS TO  
PREVENT MEDICAL  
ERRORS**



Jason Adelman, MD, didn't start his medical career thinking he would become a leader in patient safety and quality. After completing an internal medicine residency, he initially followed in his family's tech-driven footsteps by starting a medical software company.

Recruited to a New York City hospital with the provision that he could work on the hospital's health IT system, Dr. Adelman improved patient safety through use of the electronic health record. A new role as patient safety officer, which included implementing the Joint Commission's first National Patient

Safety Goals, led to a career in patient safety research. He recalls an incident in the hospital in which a woman was accidentally given a dose of methadone that was intended for another patient. "It would have been easy to blame the health care providers involved, but blaming them would not prevent this type of error from happening again," Dr. Adelman said in an interview for the Joint Commission Journal on Quality and Patient Safety. "A foundational principle of patient safety is to identify system failures that lead to errors and fix the systems." He worked with a team of clinicians, patient safety leaders, and health IT experts to build two alerts that were shown in a randomized trial to significantly reduce wrong-patient errors.

"Health care delivery is complex and any number of things along the care delivery continuum can go wrong," Dr. Adelman says. "The best chance we have to prevent errors is to simultaneously leverage technology, improve clinical decision support, reduce clinician burden, and improve the systems that facilitate these dynamics."

### No Quick Fixes

Dr. Adelman has developed a sequential approach that has defined his work in patient safety operations and research: Identify errors, follow up with clinicians soon after errors are made to understand how the errors occurred, create an intervention to prevent the error from happening again, and conduct randomized controlled trials to evaluate effectiveness of the intervention.

"I often see the drive to solve a problem right now. But without taking time to understand the problem and the contributions of different elements of the system, you may not know exactly what you are trying to fix and whether the solution works as intended. Ultimately, it is better to invest time and effort putting in place a sound strategy—create and validate reliable process and outcome measures, rigorously test interventions, and monitor the outcomes—and thereby generate evidence to actually fix the problem. What we learn benefits our patients and can also be shared widely with other health systems facing these common challenges," says Dr. Adelman.

Joining Columbia in 2015 as a hospitalist, Dr. Adelman is now associate dean for quality and patient safety at VP&S, director of the new Center for Patient Safety Science, vice chair for quality and patient safety in the Department of Medicine, and system associate chief quality officer for patient safety and learning health system science for New York-Presbyterian. Research by Dr. Adelman and colleagues has appeared in high-impact journals including JAMA, JAMA Internal Medicine, and JAMA Pediatrics.



Jason Adelman, center, with Benjamin L. Ranard, deputy director of the Center for Patient Safety Science, left, and Maureen Kelly, director of quality and patient safety in the Department of Medicine





### Research Findings Lead to National Guidance

Dr. Adelman’s work in patient safety research includes development of the Wrong-Patient Retract-and-Reorder (RAR) Measure, a validated and reliable method of quantifying the frequency of wrong-patient orders placed in electronic ordering systems. The Wrong-Patient RAR Measure was the first automated measure of medical errors and the first health IT safety measure endorsed by the National Quality Forum. The method identifies thousands of near-miss wrong-patient errors per year in large health systems, enabling researchers to test interventions to prevent this type of error.

Wrong-Patient RAR has been used to evaluate the effectiveness of patient safety interventions in multiple studies conducted in diverse EHR systems and clinical settings, including in the neonatal intensive care unit. Research is underway to extend the RAR methodology to specific types of medication errors such as wrong-dose and wrong-drug errors and to develop other new health IT safety measures.

Dr. Adelman’s research findings have led to national patient safety guidance, including a 2016 recommendation issued by the Office of the National Coordinator for Health Information Technology that health care organizations use the Wrong-Patient RAR

**“We need to develop the next generation of leaders and researchers to work on solving the difficult quality and safety challenges in health care.”**

Measure to monitor the frequency of wrong-patient orders. Another pivotal regulation addressed the non-distinct naming conventions used by most hospitals for newborns, e.g., Baby Boy Jones or Baby Girl Jackson. As of 2019, the Joint Commission requires hospitals to adopt distinct methods of newborn identification based on results of a study led by Dr. Adelman. In that study, simply using a more distinct naming convention that incorporated the mother’s first name significantly reduced wrong-patient orders in the neonatal intensive care unit by 36%.

### Developing the Next Generation of Patient Safety Researchers

Dr. Adelman has been PI on numerous grants to study quality and patient safety by leveraging health IT and informatics to improve health care delivery and outcomes. He leads the EQUIP Center for Learning



## Center for Patient Safety Science Ushers in a New Era for Advancement

VP&S has established the Center for Patient Safety Science, or CPSS, to formalize Columbia's commitment to patient safety and quality and to demonstrate national leadership in this field. The center is led by Jason Adelman, MD, a leading expert and innovator in patient safety measures and research who has received top honors for developing novel methods embedded in health IT systems to measure and prevent errors and whose research has informed national recommendations and regulations with direct applications to health policy and patient care.

Creation of CPSS recognizes patient safety as a fundamental principle of health care delivery and the need to generate pioneering work across research, education, and practice to reduce the occurrence of avoidable harm and drive equitable, consistent, and sustainable improvements across the medical center. It expands on the former Center for Patient Safety Research founded by Dr. Adelman in 2017, which published groundbreaking studies and trained physicians to become researchers in this field.

"Since 2017, Dr. Adelman has created a seminal body of work," says VP&S Dean Katrina Armstrong, MD, "and this center will build upon it, bringing together cutting-edge programs in research, education, and implementation to ensure that Columbia becomes a national leader in patient safety."

CPSS will provide a formal pathway for faculty from multiple departments and divisions to collaborate on patient safety research. A quality and patient safety training academy will encourage medical students, house staff, and faculty to pursue careers in this field. To directly impact patient care, the center will work with ColumbiaDoctors, the faculty practice, to use predictive models and innovative interventions to prevent adverse patient safety events. A stakeholder advisory board will engage the community in setting patient safety priorities and developing research projects. The center's activities also will be guided by an external advisory board that will provide periodic external review of key ColumbiaDoctors safety programs.

**More information:** <https://www.vagelos.columbia.edu/CPSS>

Health System Science, which was awarded \$5 million this year by the Agency for Healthcare Research and Quality and is a collaboration among Columbia University Irving Medical Center, Weill Cornell Medicine, New York-Presbyterian, Albert Einstein College of Medicine, and Montefiore Medical Center.

EQUIP leadership across the five organizations will direct the creation of new models of learning health system infrastructure to develop a cadre of diverse researchers who generate evidence that leads to rapid and broad improvements in health equity and outcomes. EQUIP will award pilot funding for faculty to conduct a total of 12 learning health system projects over five years that focus on the intersection of health equity and quality/patient safety. This includes opportunities to receive research education, mentorship, support, and experience to prepare faculty to successfully complete research projects and apply for future extramural funding. "I want to use every opportunity to promote the value of a high-functioning learning health system to improve quality, patient safety, and patient outcomes," says Dr. Adelman.

As director of the established Patient Safety and Health Services Research Fellowship, a T32 training funded by the Agency for Healthcare Research and Quality, Dr. Adelman mentors postdoctoral fellows in projects addressing many challenges facing patients today. Launched in 2018, the fellowship trained eight physicians in its first five years, 63% of whom were women and 38% of whom were from underrepresented minority groups. Five of the eight graduates have joined the Columbia faculty, one has joined Weill Cornell, four have received continued grant funding, two are seeking K awards in patient safety research, and two received honors in pediatric research. The fellowship has been renewed for 2023 to 2028 to train an additional 15 physician-researchers. Dr. Adelman's dedication to mentorship and commitment to advancing patient safety in critical areas earned him both the John M. Eisenberg Excellence in Mentorship Award from the Agency for Healthcare Research and Quality and the John M. Eisenberg Patient Safety and Quality Award for Individual Lifetime Achievement from the Joint Commission.

"We need to develop the next generation of leaders and researchers to work on solving the difficult quality and safety challenges in health care," says Dr. Adelman. "This overall approach aligns with our ongoing efforts to become an effective learning health system; that is, a system that leverages the vast repository of EHR clinical and log data to generate evidence that can be readily translated into improving care."

### 3 Key Goals of the Center for Patient Safety Science

#### Conduct multiple, high-impact, innovative patient safety research projects

- Recruit and train high-impact patient safety researchers to create the knowledge to advance patient safety
- Partner with the Department of Biomedical Informatics, the Data Science Institute, and external collaborators, including the New York State Department of Health, to increase the rigor and impact of patient safety research
- Fund pilot projects to create collaborative research across Columbia University, leveraging strengths in computer science, statistics, industrial engineering, and operations research
- Provide core support for patient safety research
- Evaluate the implementation of innovative AI and genomic programs

#### Create robust internal and external educational and training programs

- Create an internal quality and patient safety training academy
- Develop a standard curriculum for Columbia faculty, nurses, medical assistants, house staff, and students
- Engage with medical students, house staff, and faculty to foster their interest in patient safety and connect them to patient safety projects
- Advance the center's findings through publications, news media, national conferences, patient advocacy groups, and symposia, building Columbia's reputation as a leader in patient safety research
- Present an annual National Patient Safety Excellence and Innovation Award

#### Improve patient safety across the medical center

- Provide support to design, implement, and evaluate patient safety projects based on the most common trends and challenges in patient safety
- Encourage alignment of faculty patient safety research endeavors with leading patient safety priorities
- Advise chief medical officer and chief quality officer on best practices in quality and safety to guide improvement efforts in all locations, departments, and services
- Support the implementation and analysis of an annual safety culture survey
- Advise on implementation of predictive models to prevent adverse patient safety events

Further, he adds, support for patient safety means understanding that it is often not productive to blame health care providers for medical errors. “Humans make errors and we must make preventing errors a mission and a priority, then devote time, energy, and resources to that goal.”

#### Priorities for the New Center

Among Dr. Adelman's research priorities is understanding the unintended consequences of AI and the potential for harm from AI tools. “I believe AI will improve patient care and patient safety, but we must be smart, use good judgment, and evaluate AI interventions before blindly implementing them.”

Columbia's leadership in patient safety will include the creation of a High-Reliability Computerized Provider Order Entry system that operates without serious error or failure. “Building on the utility of the Wrong-Patient RAR Measure, my research team has developed and validated several additional measures of order errors in two different EHR systems by applying the RAR methodology,” says Dr. Adelman. “We are in the process of developing a program that

**“Humans make errors and we must make preventing errors a mission and a priority, then devote time, energy, and resources to that goal.”**

can run these measures against a simple file of order data generated by any hospital or health system. The program can be easily distributed and can be used by staff with limited time and technical resources. The result will allow many hospitals to judge how they rank among peers and identify opportunities for error-reducing interventions.”

Dr. Adelman credits VP&S Dean Katrina Armstrong for making patient safety a core value and a priority and putting resources toward the new Center for Patient Safety Science. At NewYork-Presbyterian, Steven J. Corwin, MD, president and CEO, and Deepa Kumaraiah, MD, senior vice president and chief medical officer, have supported Dr. Adelman's efforts to foster a culture that makes patient safety a priority. ❖

# Alumni News & Notes

By Julia Hickey González, alumni writer,  
and Bonita Eaton Enochs, editor

## 1962

See Alumni in Print to read about a book of poems written by **Norbert Hirschhorn**. The collection, “Over the Edge,” was celebrated with a launch party last September in the October Gallery in London. Norbert was born in Vienna and with his parents escaped the Nazi regime by moving to London. His five decades as an international public health physician include work during the past decade studying tobacco control, in particular examining once-secret but now publicly available tobacco industry documents. He spends his retirement in Minneapolis writing and publishing poetry and literary book reviews. His poems have won prizes in five UK competitions, and he has been a finalist in several American competitions.

## 1963

See Alumni in Print to read about a book written by **Robert S. Brown**, associate professor of medicine at Harvard Medical School and a nephrologist and former clinical chief of nephrology for over 40 years at Beth Israel Deaconess Medical Center in Boston.



Robert S. Brown '63

## 1964

See Alumni in Print to read about a book by **Willard E.**

**Andrews**. After retirement from the practice of general surgery in Juneau, Alaska, he went back to his Cape Ann, Massachusetts, roots and spent 25 years studying, researching, and building fine-art models of Essex-built Gloucester fishing schooners, several of which are now in a prominent East Coast museum. Will and wife Linda now reside in the central Idaho Rockies but return to Gloucester every year to be around saltwater and spend time at the cottage built by his grandfather on land that has been in his family since 1803.

**Thomas L. Dent** introduced the lecturer at the Thomas L. Dent Annual Lectureship in Minimally Invasive Surgery in May. After Yale, medical school, and a surgical residency at the



Thomas L. Dent '64

University of Michigan, Thomas became a professor of surgery at the University of Michigan (1974-1984) then chair of the Department of Surgery at Abington (Pennsylvania) Memorial Hospital and professor of surgery at Temple University Medical School (1984-2001). Following his retirement and move to Santa Barbara in 2001, the Abington Hospital Department of Surgery named him

emeritus chair and instituted the annual lectureship, allowing him to select from among the best surgeons in the country to give the annual lecture and to return to Abington each year to introduce them to the staff, residents, and students. His current interests are family (artist-wife Joan, six children, 12 grandchildren), golf, and travel.

## 1965

When **Oscar Garfein** was interviewed for this issue's story on RhoGAM, he discussed his work as a research assistant to John Gorman, co-developer of the blood product that prevents Rh disease in at-risk patients. During the summer between his first and second years of medical school, in 1962, Oscar worked with Dr. Gorman, who was exploring the then-unknown role of the small lymphocyte in the immune system. Dr. Gorman thought that by using X-rays to obliterate all the small lymphocytes, a new population of small lymphocytes would recognize the red blood cells as foreign substances and produce auto-immunity. Oscar drew blood from mice irradiated on a variety of X-ray dosing schedules and performed a direct Coombs test on each sample to reveal whether the auto-immune response persisted. That effort got off to a rocky start. He recalls the

thoughtful and non-judgmental help of Dr. Gorman's assistant, a former nun named Nancy Treacy, in performing the Coombs test. “There was a technical aspect to it,” Oscar says of what was then a manual technique that



Oscar Garfein '65

required a gentle touch. “Miss Treacy watched me do it and said, ‘You're banging the test tube too hard.’” Oscar collected the relevant data and drafted a report on what seemed to be groundbreaking findings. “Our paper would have overthrown everything that was known about immunity,” he says. Further consultation with a team of hematologists in Boston, however, revealed that the results were merely an artifact of a reagent. “The positive Coombs test was due to a positive response to a protein on the surface of reticulocytes that went away when the Coombs reagent was adsorbed

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with reticulocytes, and thus it was not a basic immune response to native red blood cells.” Oscar recalls how Dr. Gorman asked him to accompany him to the labs in New Jersey, where he met some of the leading experts in immunology, and how he attended beach parties with the supplier of the Coombs serum, who was a full professor at Cambridge. He also met other great contributors to the eventual production of RhoGAM, although he recalls questioning Dr. Gorman about administering the vaccine to volunteers. “Why are you wasting your time on this when we are doing the real work in the lab?” he recalls asking him. “It was the first, if not the greatest, of many mistakes I made in my medical career.” Dr. Gorman made Oscar lead author on the Nature paper that resulted from their research. “Dr. Gorman was gracious and caring and made my summer such a joy, and the experience taught me so much about collaboration.”

See Alumni in Print to read about a book published by **Michael Glenn**. The collection presents stories written over a 60-year period, from college and



Michael Glenn '65

medical school to his career as a physician, psychiatrist, factory worker, and community activist. Now retired, Michael has written several books since “Trouble on the Hill and Other Stories”

was published in 1979, including the non-fiction works “On Diagnosis” (1984), “Collaborative Health Care” (1987), and (with Barry Dym) “Couples: Exploring and Understanding the Cycles of Intimate Relationships” (1993). In the 1970s he founded the journal *The Radical Therapist*. His stories also have appeared in the *Hudson Review*, the *Antioch Review*, and the “Young American Writers” anthology.

**Ronald K. St. John** is serving on a technical advisory panel for the World Bank and World Health Organization to assess member states’ applications for funding to enhance preparedness for the next pandemic. Over \$300 million was distributed in the first round. He continues to consult with WHO on managing emergency responses to infectious disease outbreaks and pandemics, and a second round of \$500 million in funding is in progress. Early in his public health career, Ron was a staff physician for the Peace Corps, working toward tuberculosis control in Bolivia (1966-68) and malaria control in the Philippines (1968-70). He was the medical adviser to the U.S. Embassy in Thailand during the Khmer refugee crisis. He has held posts with the CDC and the Pan American Health Organization. He retired as Canada’s first director-general of the Federal Centre for Emergency Preparedness and Response in its federal Department of Health.

### 1972

**Bruce Kessler**, an internist who practiced in Humboldt County in California from 1978 until his retirement in 2018, received the California Medical Association’s most prestigious award, the Frederick K.M. Plessner Memorial Award. The award honors the California physician who best exemplifies the ethics and practice of a rural country practitioner.



Bruce Kessler '72

Bruce completed his residency in internal medicine at Stanford University Hospital after an internship at Presbyterian Hospital. In retirement he has been involved in starting a family medicine residency in Eureka, California.

### 1973

See Alumni in Print to read about a book written by **Fred Southwick**. An expert in infectious diseases, he has also created innovative approaches for preventing medical errors that result in patient injuries and deaths. His former wife, Mary, nearly died as a consequence of distracted care and delayed treatment, and Fred lost his leg during a repair of an Achilles



Fred Southwick '73

tendon tear. He has practiced medicine for over 30 years, giving him rich clinical experience and deep insight into how to practice effectively on the front lines of hospitals and clinics.

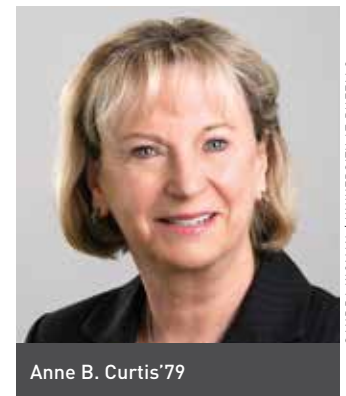
**Ken Tomecki** is president of the American Dermatologic Association, the oldest dermatology group in the United States comprised of “the movers and shakers” within the specialty. Ken is still at the Cleveland Clinic, working part time and traveling whenever possible, invariably with Eileen, still his better half.

### 1974

**William H. Theodore** began his term as president of the American Epilepsy Society in December at the end of the society’s annual meeting in Orlando. Bill is professor of neurology at the F. Edward Hébert School of Medicine of the Uniformed Services University and senior investigator at the National Institute of Neurological Disorders and Stroke.

### 1979

**Anne B. Curtis** received the 2024 Dr. Carolyn McCue Award for Woman Cardiologist of the Year from Virginia Commonwealth University. Anne is SUNY Distinguished Professor in the Department of Medicine at the University at Buffalo’s Jacobs School of Medicine and Biomedical Sciences. The award was pre-



Anne B. Curtis '79

sented Feb. 3 at the Heart Health in Women Symposium hosted by the VCU Health Pauley Heart Center. She delivered a keynote speech about disparities in cardiac care, including that advanced car-

SANDRA KICMAN / UNIVERSITY AT BUFFALO

diac therapies are either offered to women at a later stage in their disease than men or not at all. Anne has been at the University at Buffalo since 2010 and was the Charles & Mary Bauer Chair of the Department of Medicine in the Jacobs School from 2010 to 2022. She cares for patients and conducts research in clinical cardiac electrophysiology. She is president of the Association of Professors of Medicine and past president of the Heart Rhythm Society, the Cardiac Electrophysiology Society, and the Association of University Cardiologists. She received the Heart Rhythm Society's Distinguished Service Award and President's Award. She is on the editorial boards of many academic journals in the fields of cardiology and electrophysiology and is an associate editor of the *Journal of the American College of Cardiology*. After a residency at Columbia, she completed fellowships in cardiovascular disease and clinical cardiac electrophysiology at Duke University.

## 1988

See Alumni in Print to read about a book written by **Sharon Malone**. Sharon is a Washington, D.C.-based OB/GYN and certified menopause practitioner. As chief medical adviser at Alloy Women's Health, a telehealth company that focuses on women over 40, she is on a mission to empower women to take charge of their health. "Throughout my professional career, I have been active in advocating for reproductive rights, reducing teen pregnancy, and eliminating



Sharon Malone '88

health care disparities," she notes. She and her husband, Eric Holder Jr., live in Washington, D.C., and have three children.

## 1993

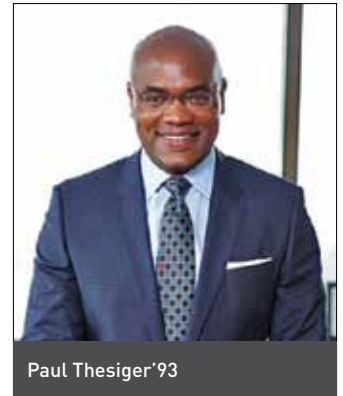
**James McKiernan** became president of the American Board of Urology in March. ABU promotes competency in the practice of urology by certifying urologic physicians who have core competencies that allow them to treat all patients with urological disorders. Jim is the John K. Lattimer Professor of Urology and Chair



James McKiernan '93

of the Department of Urology at VP&S. He also is senior vice dean for clinical affairs and CEO of ColumbiaDoctors, Columbia's faculty practice organization.

**Paul Thesiger** has been named to the Board of Directors of the Kennedy Krieger Institute, a nonprofit in the greater Baltimore-Washington, D.C., region that conducts research and treats children, adolescents, and adults with diseases, disorders, and injuries that impact the nervous system. After an internship at



Paul Thesiger '93

## Honoring a Mentor

A symposium and celebration in August 2023 in New Jersey brought together 100 oral and maxillofacial surgeons to honor the 80th birthday of former Columbia faculty member Steven M.



Roser. The symposium also honored Dr. Roser's 50-year academic career. Dr. Roser chaired oral and maxillofacial surgery at Columbia and New York-Presbyterian from 1981 to 2001. He developed one of the premier oral and maxillofacial surgery training programs in the United States. During the six-year residency program, the dental school graduates received training in general surgery, anesthesia, and oral and maxillofacial surgery before receiving MDs from VP&S. After serving as dean of graduate medical education at Columbia and NYP from 2001 to 2004, Dr. Roser became chief of oral and maxillofacial surgery at Emory University. Several residents trained by Dr. Roser attended the symposium and dinner. From left: Christopher Bonacci'95, Robert Memory'04, Maria Dourmas'98, Jack McCabe'91, Marty Kaminker (retired faculty member), William McMunn'90, Christine Hamilton-Hall'91 (seated), Matthew Brown'92, Dan Farr'89, Joseph Napoli'88, William Pochal'88, Brian Lambert'95, Dr. Roser, Martin Dominger'97, Shahid Aziz'99, Chang Han'05, Angelo Ostuni'05, Linda Huang'03, Aaron Park'09, Sara Runnels'00, Vincent Carrao'96, and Reza Miremadi'98.

Columbia, Paul studied general surgery at Howard University College of Medicine. He completed a residency in plastic surgery at the University of Miami and was named a Jerome Webster Fellow in Pediatric Plastic Surgery by Interplast, a California-based philanthropic organization. He worked in a private practice outside of Cleveland, Ohio, and in 2006 opened his own specialized center, The-siger Plastic Surgery, in Washington, D.C.

### 1993 PhD

**Anna K. Batistatou** has been elected rector and presiding member of the governing council of the University of Ioannina in Greece. Rector is the highest leadership position at the university. Anna, who also has an MD degree, previously was dean of the Faculty of Medicine and director of the Department of



Anna K. Batistatou '93 PhD

Pathology at the university. She received her PhD in pathobiology in the VP&S Department of Pathology & Cell Biology and the Center for Neurobiology and Behavior. She was a pathology resident at NY-Presbyterian Hospital for a year before continuing her residency at the University Hospital in Patras, Greece. She joined the faculty of the University of Ioannina in 2002 and became a full professor in 2013. Anna has published

papers on the burden of disease, cancer, humanities, health sciences education, research, policy implementation, and guideline development. Over the past five years, her leadership positions have included serving as president of the Hellenic Society of Pathology, member of the European Union of Medical Specialists (Section of Pathology/European Board of Pathology), and member of the Educational Committee and the Advisory Board of the European Society of Pathology. She also sits on the Hellenic Universities Rector's Conference and is a member of the Regional Council of Research and Innovation. She is the author of a literary book titled "Life in Stone," published in 2016.

### 1999

**Kristin Russell** is now chief medical officer of Neighborhood Health Plan of Rhode Island, an HMO founded in December 1993 in partnership with Rhode Island's Community Health Centers. Board-certified in both psychiatry and child and adolescent psychiatry, Kristin completed her residency at Brigham & Women's and Beth Israel Deaconess and her fellowship at Massachusetts General Hospital. She previously was associate vice president of enterprise outcomes management at Humana, a faculty member at Harvard Medical School, and an attending psychiatrist at Massachusetts General Hospital. She has served on the National Committee for Quality Assurance Committee on Performance Measurement and held leadership positions at startups focused on clinical analytics and behavioral health.

### 2008

**Irene J. Lo** is now chief medical officer for the Contra Costa Health Plan in the county east



Irene J. Lo '08

of San Francisco. She specializes in surgery and resides in Orinda, California. She is also president-elect of the Alameda Contra Costa Medical Association. Her presidency will begin in November 2024.

### 2011

See Alumni in Print to read about a book written by **Austin Chiang**. Austin is a gastroenterologist and chief medical officer for the endoscopy arm of Medtronic, a health technology company. He practices interventional and bariatric endoscopy as an assistant professor of medicine at an academic medical center in Philadelphia. He also is director of the endoscopic weight loss program. As a health educator with multiple social media platforms, he was named one of the top leaders in innovation in gastroenterology. His expertise has been included in New York Times, CNBC, BBC News, and Men's Health stories in addition to reports in medical journals.

### 2013

**Eric Tang** was named to the 2023 de Beaumont Foundation's 40 Under 40 in Public Health list. The de Beaumont Foundation's 40 Under 40 in Public Health is the first list of its kind to recognize and elevate leaders changing the face of public health. Eric is a public health medical officer and chief of the Medical & Scientific



Eric Tang '13

Affairs Section at the Sexually Transmitted Diseases Control Branch of the California Department of Public Health.

### 2014

**Zeena Audi-Saba** will receive the 2024 Margaret S. Lindsay Courageous Provider Award from the nonprofit organization Courageous Parents Network. The award recognizes a pediatric palliative care provider who



Zeena Audi-Saba '14

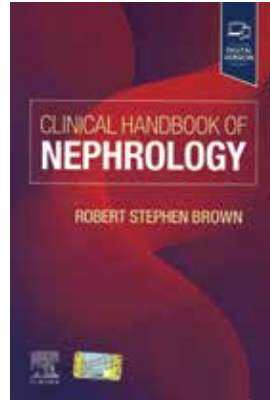
models both tenacity and empathy while working with children and their families. Zeena is clinical assistant professor of pediatrics and an attending physician at Hassenfeld Children's Hospital, NYU Langone Health. Her nomination said she "understands how necessary it is to be an advocate for our patients who do not have voices, especially when parents are having difficulty advocating for the needs of their children."



## Over the Edge

**Norbert Hirschhorn '62**  
Holland Park Press, 2023

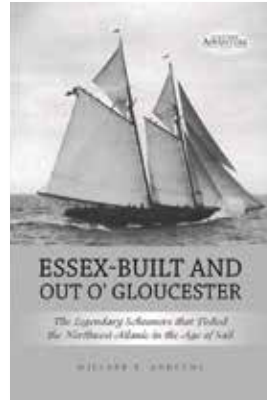
Dr. Hirschhorn's seventh collection of poems was inspired by his move back to the United States after dividing his time between London and Beirut for several years. "Moving to a new place puts things into a new perspective and makes one aware of passing time and can lead to a form of alienation," says Dr. Hirschhorn. The first set of poems in this collection addresses that theme. Other poems reflect on his family's move to London to escape the Nazis, the family's 1944 move from England to an apartment on Riverside Drive, his roots in the Middle East and Finland, and a moving letter to his late parents.



## Clinical Handbook of Nephrology

**Robert S. Brown '63**  
Elsevier, 2023

Dr. Brown's book has everyday information on renal physiology and a wide range of topics, including diagnosis and treatment of acute and chronic kidney diseases, hypertension, electrolyte and acid-base disorders, dialysis, and kidney transplantation. The book, in hard copy and digital formats formerly known as the textbook "Nephrology Pocket," offers physicians, nurses, dialysis center staff, medical students, residents, and fellow trainees practical advice for managing the renal disorders most commonly seen in private practice. Contents include diagnostic and treatment algorithms, tables, and charts; protocols; drug information; and treatment guidelines, including the latest Kidney Disease Improving Global Outcomes for the evaluation and management of chronic kidney disease, glomerulonephritis, and blood pressure management.



## Essex-Built and Out O' Gloucester: The Legendary Schooners that Fished the Northwest Atlantic in the Age of Sail

**Willard E. Andrews '64**  
Dorrance Publishing Company, 2023

The book by Dr. Andrews explores the evolution of the Essex-built schooners that fished out of Gloucester, Massachusetts, during the latter half of the 19th century and early years of the 20th. It is the fascinating saga of how these vessels evolved in response to the demands of the fisheries, changing technology, and demands for greater safety to become, in their time, the envy of the maritime world, the finest, fastest, most able fore-and-aft rigged commercial sailing vessels ever to exist. It demystifies the plans of these vessels and uses a series of fine-art models built by the author to show them as they were when fitted out and ready to do business on the great waters.



## Selected Stories

**Michael Glenn '65**  
Gray Dove Press, 2023

Reviewers describe Dr. Glenn's book of short stories, spanning 60 years, as an extraordinary collection of sharply observed tales. Some of his characters are hard to love, but all are struggling to find some measure of love, peace, and safety within themselves and their relationships. As his stories evolve, Dr. Glenn calls on his experiences as a doctor, political activist, husband, and father to craft pictures of everyday life, human interactions, and personal and professional relationships. Stories that explore the doctor's role offer a window into the inner life of medical professionals and the difficulties in providing care while also connecting as a person.





### Playing With Bees: Why Honeybees Hold the Key to a Better Healthcare System

**Frederick S. Southwick '73**  
Southwick Press, 2023

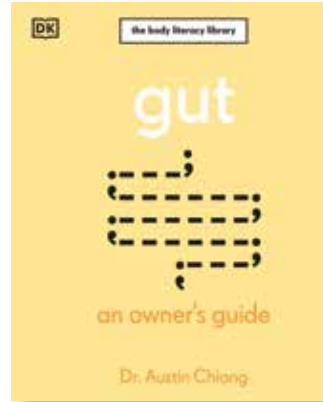
Dr. Southwick's book describes his journey as an infectious diseases specialist and quality improvement director to his ongoing work to make the changes needed to reduce medical errors. "By persistently applying the scientific method and behavioral change management, I was able to create a highly integrated system that emulates the key principles of the highly reliable honey beehive system," Dr. Southwick writes. The book strives to answer several questions about how the medical system fails patients. In searching for answers, Dr. Southwick ironically lost his leg because of a medical error. His dual perspective as an injured patient and a physician provides unique insights into the challenges and solutions for fixing errors in health care.



### Grown Woman Talk: Your Guide to Getting and Staying Healthy

**Sharon Malone '88**  
Penguin Random House, 2024

Dr. Malone's book has been described by Michelle Obama as "a must-read for anyone who cares about their quality of life." Dr. Malone, the chief medical adviser for Alloy Women's Health and an advocate for peri- and post-menopausal health, wants her book to be a guide to aging and health for women who have felt ignored or marginalized by the medical profession and for women standing at the intersection of aging and health. She calls her book part medical handbook, part memoir, and part sister-girl cheerleader. The book is filled with useful resources and real-life stories of victory and defeat. Adds Michelle Obama: "For Dr. Sharon, this isn't just about how to live longer; it's about how to live healthier—and happier."



### Gut: An Owner's Guide

**Austin Chiang '11**  
DK/Penguin Random House, 2024

In Dr. Chiang's first book, he writes for the general public to help increase understanding in multiple areas of gut health and gastroenterology—"in a more digestible and fun way." The book has colorful illustrations and, unlike other "gut health" books, includes the history of medical knowledge in this space. It also describes less-discussed diseases, procedures, and technology. Each chapter has sections that bust some common gut health myths. The book includes lifestyle advice, tips for how to best care for the gut, information about what to eat (or not eat), and an explanation of the microbiome and the brain/gut connection.



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● ALUMNI PROFILE

## David Chiu'73

### A Plastic Surgeon Ensuring All is in Good Order

By Julia Hickey González

In June 2015, “The Tonight Show” host Jimmy Fallon tripped on his kitchen rug and flailed to the floor, while his wedding ring caught on the countertop and stuck there. The resulting injury, which stripped his finger of its flesh, landed him in Bellevue Hospital’s intensive care unit in New York City for 10 days. He returned to the late-night stage visibly humbled, with his left hand bandaged to tell the tale:

“This amazing doctor—Dr. David Chiu—he comes in. He has a bow tie and cowboy boots?! THAT’S my doctor. That’s my guy,” Fallon marveled.



JULIA HICKEY GONZALEZ

David Chiu in the waiting room of his private practice office in Manhattan, June 2023.

David Chiu’73, NYU Langone’s chief of hand surgery and founding director of its New York Nerve Center within the plastic surgery department, exudes a maverick elegance through his choice of accessories. But he knows better than to wear rings. Four out of 10 such “ring avulsion” injuries nationally result in amputation, he said, and of the fingers that survive, only 20% regain movement.

“Jimmy Fallon can play guitar with that hand,” Dr. Chiu explains in a more grave than boastful tone. “It was a fortunate and gratifying outcome.”

Fortunate are the patients treated by Dr. Chiu because he premiered the techniques that can revive ghostly digits and even entire severed limbs. Using autogenous vein graft as nerve conduit (AVNC), he removes a vein from “more convenient and less expensive real estate” on the body, such as the foot, and threads the injured nerve stumps from both ends into it. The patient’s vein serves as a covered bridge to keep out scar tissue while the delicate, cable-like nerve strands grow toward the end-organs. The “nerve conduit” concept, coined by Dr. Chiu, inspired bioengineering companies to seek synthetic variations.

“I’m kind of the senior statesman of hand surgery in New York,” says Dr. Chiu, whose professional life has paralleled the development of microsurgery and peripheral nerve surgery in New York City. “All the difficult cases they refer to me.”

Chosen by Dr. Jerome Webster, Dr. Chiu was the first VP&S student to become a sub-intern in Columbia’s plastic surgery service. Because he is ambidextrous, he is able to sew stitches in one continuous, alternating motion. While a Columbia resident in 1978, he treated a handyman’s saw injury by completing the school’s first successful finger replantation. When television crews arrived to interview the surgeon, Dr. Chiu declined to take credit, hoping not to eclipse the attending supervisor, who had not been present.

Dr. Chiu would go on to help establish the replantation team at Bellevue Hospital throughout the 1980s after completing a fellowship there. Returning to Columbia in the ’90s, he pioneered challenging transformations in which second toes were replanted onto hands to act as functioning fingers on babies with amniotic band syndrome.

Always seeking to preserve harmony in form and function, he also began preserving subcutaneous fat under skin grafts to create a smoother, more natural appearance. He named the technique

adipose tissue-preserved skin graft. And while Dr. Chiu takes great satisfaction in the aesthetic aspect of plastic surgery, he continues to feel that his highest duty is to those in dire need of vital reconstruction and preservation of movement.

On a trip to Morocco, he observed halal slaughtered chickens running headless through a courtyard. This sparked research into the powers of the spinal cord, as opposed to the brain, to direct motion. Collaborating across cell biology and anatomy departments, his lab used a rodent model to identify his hypothesized “spinal brain” when a proximal spinal nerve was cut and implanted into this specific area of gray matter (Lamina 7-9).

For developments including AVNC and the concept of re-entry spinal cord innervation, Dr. Chiu received the prestigious Hanno Millesi Award in Vienna in 2010 for achievements in peripheral nerve regeneration. He was the second American to receive the honor.

### A Benevolent Path

As a 5-year-old patient in his pediatrician’s waiting room, David Chiu approached each of the other children to ask how they were feeling. “Are you sick? Do you have a sore throat?”

The nurses delighted in the boy’s desire to mimic his pediatrician. He was a soloist in his school’s chorus in Hong Kong, and he had fallen ill just before a competition. His pediatrician filled a porcelain bowl with water, heated it with an alcohol lamp, and had the boy inhale the steam to clear his nasal passages.

“I sang, and we won. He became my biggest hero,” says Dr. Chiu. He saw that the practice of medicine came down to one fundamental and benevolent reality: Doctors make people better. It became his life goal.

Dr. Chiu’s parents were initially dubious about his choice to pursue medicine, because they had never seen him touch anything dirty.

Dr. Chiu’s last memory of Sunwui, China, where he was born and from which his family fled after the Communist revolution of 1949, is an image of his servants weeping before him on their knees. He was 4. Dr. Chiu was his father’s only son and, he explains, the 31st generation descendent from the second emperor of the Song dynasty. After the new regime condemned his family, they escaped to Hong Kong. His aunts would die by suicide. He wouldn’t return to China until traveling with a medical delegation in 1984. When he looked out of the plane upon China’s coastline, he was surprised when his eyes welled with tears.

“China is always part of me. I am very proud of my Chinese cultural heritage and my family legacy. One thing I’m very proud of is that my ancestor became emperor of the Song dynasty without spilling one drop of blood. And we never produced a tyrant,” he says.

Dr. Chiu studied in England and the United States, where he attended the University of Missouri before arriving at what is now VP&S. In medical school, he developed a passion for the mess of surgery. “I wear gloves,” he told his parents. “It’s all fun.”

Dr. Chiu found medical school relatively easy. First of all, although he has dyslexia, he could speed read his textbooks. “So



David Chiu and Lilian Chiu in 1973

when I read, I don’t read words. I don’t read lines. I read pages,” he says.

A remarkable auditory memory also helped. After attending a lecture, he would have the content memorized. His classmates, incredulous, demanded to see his notebook, only to find illegible scribbling that he did to pass the time.

Because the medical student found himself with an unusually flexible schedule, he focused on elevating the extracurricular activities of the VP&S Club to meet his princely standards. He had attended movie nights with black-and-white projections on a torn screen and the occasional bedsheet toga party but felt the students deserved better.

“I like to see things in good order. I wanted it to be well organized. If you have some good idea, well, do it. Do it right. Do it the best,” he says.

Dr. Chiu became president of the club, fired its director, hired an executive secretary, began charging for events, and revitalized the organization’s finances. For the Christmas party in 1972, he put out a sign-up list for student volunteers to rearrange the dining hall at 50 Haven Avenue into a dancing room. Only one person signed up, under the name “Rudolph the Reindeer.”

As dinner was concluding, Dr. Chiu took to moving the furniture by himself. One by one, other students joined in until everyone had prepared the hall for the musical guest: the psychedelic rock band from the Broadway production of “Joseph and the Amazing Technicolor Dreamcoat.”

“It was electrifying!” Dr. Chiu remembers. The booming show greatly moved the young associate dean, Dr. Donald Tapley, who became the club’s greatest benefactor and advocate. The club expanded its activities and professionalized its theatrical performances, such as full musicals with VP&S student actors and the spectacular singer and saxophonist Yvonne Thornton<sup>73</sup>.



David Chiu, center, during microsurgery and replantation conference rounds at Bellevue Hospital, where he was a supervisory attending at its hand clinic in the 1980s.

“No one mocked me anymore,” Dr. Chiu says. “You know, those four years were some of the most beautiful of my life.”

Dr. Chiu met his wife, Lilian, on her first day of medical school at Columbia. He was a fourth-year student walking the halls to ensure all was in good order when he saw a young woman who appeared lost. He offered assistance and showed her to the dean’s office. Later that morning, he sat beside her on the bus to her first-year picnic upstate. When he commented on what appeared to be an ornate engagement ring, he was pleased that she told him it was only a disguise.

That night, at a party Dr. Chiu had organized through the VP&S Club to welcome first-year students, she kissed him on the dance floor in front of everyone.

### What Plastic Surgeons Do

After refusing the limelight for the first finger replantation at Columbia, Dr. Chiu finally agreed that TV cameras could enter his surgical theater in 1992. The Learning Channel would televise, live, parts of the attempt to create a functional hand for a 1-year-old girl who experienced amniotic band syndrome in utero. Strings of scar tissue had wrapped around her developing hand, and she emerged with only a pinky finger at birth.

As director of Columbia’s plastic surgery service, Dr. Chiu devised a plan to replant the baby’s second toes onto her hand, in addition to cleaving her fused digital stump into two additional fingers. The hope was to create a thumb and two fingers in addition to the pinky and, therefore, the ability to grasp. He didn’t

anticipate the crowd of people jammed into the OR, that students would be watching the surgery live streamed from a filled auditorium, or the disbelief he would encounter.

“Sir, what gives you the right to experiment on a child?” he recalls a BBC producer asking.

“I’m not experimenting. I am developing a new way to do things. That’s what plastic surgeons always do. I base my design on the things I can do well with confidence,” he explained.

“But if it doesn’t work, that would cause you a tremendous amount of embarrassment,” the producer added.

“What kind of doctor do you think I am? The chance to give the child a lifetime of function and productivity is worth the risk. Do you think I should not do it because I may fail?” he told her and got to work.

More than 10 hours later, the lights on the stage were so bright that the tiny new finger looked transparent. He removed the clip that would open the connecting artery and waited for the blood to flow. The finger turned a lively pink—a sign that all was in good order.

He would go on to complete 16 successful surgeries in eight babies with amniotic band syndrome, with every patient gaining a functional hand. Thirty years later, his first patient has grown into a thriving nurse practitioner and mother to two children, he says.

He shares the adage of his longtime Columbia mentor, Dr. Jerome Webster, who summarized a plastic surgeon’s gift: “We cannot undo all damages, but we can help someone rebuild a life. And the results of that newer life could be perfect.”

## FACULTY

**Elizabeth Auchincloss, MD**, lecturer in the Center for Psychoanalytic Training and Research, died Oct. 26, 2023. Read more in Alumni In Memoriam (Class of 1977).

**June Jackson Christmas, MD**, former clinical professor of psychiatry, died Dec. 31, 2023.

**Sergio Piomelli, MD**, director of pediatric hematology/oncology from 1979 to 2005, died Jan. 11, 2024.

**John Schullinger, MD**, professor emeritus of clinical surgery, died



John Schullinger

Nov. 13, 2023. Read more in Alumni In Memoriam (Class of 1955).

**David Shaffer, MD**, retired Irving Philips Professor of Child Psychiatry, professor of psychiatry



David Shaffer

and pediatrics, and chief of the Division of Child & Adolescent Psychiatry, died Oct. 15, 2023.



Michael Stone

**Michael Stone, MD**, professor of clinical psychiatry, died Dec. 6, 2023.

**Earl Zimmerman, MD**, former professor of neurology, died Dec. 26, 2023.

## ALUMNI 1946

**Clifford Tepper**, a pediatrician, allergist, and immunologist who practiced for 40 years in Schenectady, New York, died Sept. 4, 2023. He was 100.

The son of immigrants from Eastern Europe, he attended medical school in U.S. military uniform and, upon graduation, managed U.S. Air Force mobile hospitals in Florida and Alaska. He trained in pediatrics at the Long Island Jewish Medical Center and at Columbia's Babies Hospital before opening a practice in Schenectady and teaching at Albany Medical College. He advocated for regulations and restrictions on cigarettes, smoking in public, and carcinogenic food additives. He helped create public nature preserves along the Mohawk River and in Niskayuna, including donating what is now the Schoharie Creek Preserve

to the Mohawk-Hudson Land Conservancy. Late in his career, he and several local doctors established the Schenectady Free Medical Clinic. He is survived by his wife, Cynthia Ruth Silver, four children, six grandchildren, and two great-grandchildren.

## 1949

**Ellen Zinsser Green**, former assistant commissioner of the Minnesota Department of Health, died Aug. 15, 2023, at age 98. She trained at the University of Pennsylvania Hospital in Philadelphia before moving to the Twin Cities, where she spent much of her



Ellen Zinsser Green '49

career. She earned a master's degree in public health at the University of Minnesota and became the public health officer for St. Louis Park, Richfield, and Bloomington. In 1966, she was appointed director of health planning at the state planning agency before becoming assistant commissioner of the Minnesota Department of Health. She served on the boards of the Minnesota Public Health Association, the American Public Health Association, the Council on Education for Public Health, and the Bush Foundation. She and her husband, Bud, who preceded her in death, developed and ran the Sun Valley Music Festival in Idaho for several

years. Dr. Green loved tennis, travel, opera, and her dogs. She is survived by four children, eight grandchildren, three step-children, three step-grandchildren, and five great-grandchildren.

**John Gustafson**, a pediatric cardiologist and leader of Iowa Methodist's heart surgery program, died Aug. 22, 2023. He was 99. He served stateside in the Army during World War II and as a medical officer during the Korean War. He trained in pediatrics at Iowa Methodist and Blank Children's hospitals. He helped set up Iowa



John Gustafson '49

Methodist's heart lab, where he performed all the adult and pediatric heart catheterizations from 1954 to 1969, organized the heart surgery team, and ran the heart pump. In 1959, he began pioneering research in the medical use of computers at the hospital. In 1969, he took over the emergency room and ran it for 15 years. He also became the medical director of several small Des Moines life insurance companies. Dr. Gustafson was a competitive player of duplicate bridge; he achieved the rank of Grand Life Master and represented the United States in world championship events with his late wife, Helen. He is survived by two children,

two grandchildren, and five great-grandchildren.

## 1954

**James Garvey Jr.**, a Cincinnati cardiologist honored at age 89 by the state of Ohio for his community service, died Sept. 8, 2023. He was 95. Dr. Garvey



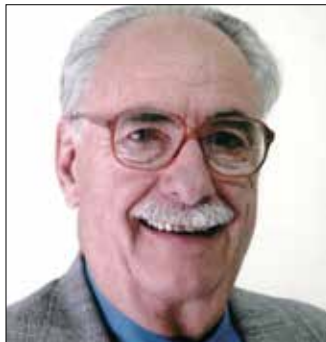
James Garvey Jr.'54

was stationed with the U.S. Army in Richland, Washington, from 1958 to 1960. He later worked at Christ Hospital in Cincinnati. For 30 years, Dr. Garvey volunteered for People Working Cooperatively, repairing houses for older adults. He enjoyed tennis, skiing, jumping waves, playing poker and bridge, gardening, and sailing. He is survived by his second wife, Janie P. Williams, two children, five grandchildren, two great-grandchildren, and his dog, Shadow.

## 1955

**Dudley Rochester**, an internist and longtime head of the Division of Pulmonary and Critical Care Medicine at the University of Virginia, died Nov. 29, 2023. He was 95. He trained at Presbyterian Hospital and Bellevue Hospital, served in the U.S. Army Medical Corps in France from 1960 to 1962, and worked at Harlem Hospital from 1968 to 1976. He then joined the University of Virginia and its

hospital, where he would serve for nearly three decades before retiring as emeritus professor. Dr. Rochester was honored with the Scientific Accomplishment award by the American Thoracic Society in 1996. He was a leader of the American Lung Association of Virginia. He



Dudley Rochester'55

volunteered with the vestry of St. Paul's Memorial Church in Charlottesville, Virginia. He enjoyed photography. His daughter, Carolyn Rochester, graduated from VP&S in 1983.

**John Schullinger**, professor emeritus of clinical surgery at VP&S, whose primary interests were the surgical problems of infants and children, especially those with cancer, died Nov. 13, 2023. He was 94. He completed postgraduate training at Columbia, interrupted by two and a half years as a ship surgeon for the U.S. Navy in the Arctic and Antarctic. He practiced and taught general surgery until 1969, when he joined Babies Hospital (now Morgan Stanley Children's Hospital). He was editor for 35 years of the International Abstracts of Pediatric Surgery for the Journal of Pediatric Surgery. After retiring from Columbia in 1997, he served on committees, including admissions, for VP&S. He was

a board member of the Charles Edison Fund, the National Hypertension Association, and the Hotchkiss School and was a founding member of the Children of China Pediatrics Foundation. He and his wife, Nancy, moved to Woodstock, Vermont, where he enjoyed fly fishing, painting, astronomy, and geology. Until 2015, he traveled annually to China to provide surgical care at orphanages. Survivors include his daughter.

## 1956

**Charles "Bill" Chastain III**, a family medicine practitioner and devout Catholic, died Aug. 21, 2023. He was 92. He trained at Mary Imogene Bassett Hospital in Cooperstown and served in the medical corps of the U.S. Army before joining the Medical Arts Clinic in Farmington, Missouri, where he worked from 1959 to 1977. He later joined the University of Missouri-



Charles "Bill" Chastain III'56

Kansas City medical school as a clinical associate professor of medicine and directed the family practice residency at North Kansas City Memorial Hospital. In 1979, he returned to Farmington, where he founded Family Healthcare of Southeast Missouri. He retired but returned to serve as medical director of Missouri's largest prison, Eastern Reception, Diagnostic, and

Correctional Center, until 2016. He enjoyed community theater, bridge, and exploring the outdoors. Dr. Chastain is survived by his wife, Joanne, seven children, 13 grandchildren, and seven great-grandchildren.

**Vernon Wendt**, a longtime internal medicine doctor and cardiologist in East Grand Rapids, Michigan, died Nov. 26, 2023. He was 92. He moved to Grand Rapids in 1965, serving as director of research at Blodgett Memorial Medical Center before entering private practice from 1967 to 2000. He served as associate professor of internal medicine at Michigan



Vernon Wendt'56

State. He enjoyed gardening, golf, and singing in his church choir. He is survived by six children, nine grandchildren, and three great-grandchildren.

## 1957

**Burton Lerner**, a psychoanalyst and faculty member in the Center for Psychoanalytic Training and Research at Columbia for decades, died Dec. 4, 2022. He was 90. He trained in psychiatry at the New York State Psychiatric Institute and the psychoanalytic center. He guided the Student Health Psychiatric Service at Columbia's medical center for many years. Dr. Lerner wrote in

1999: “I have tried to structure the Student Health Psychiatric Service so that it facilitates the clinician’s opportunity to help patients understand what is going on inside themselves, to make it possible for them to become better observers of themselves, to enable them to think about how they think.” His clinical work remained a cornerstone of his identity, and he continued seeing a few patients by Zoom until soon before his passing. He is survived by five children and many grandchildren.

### 1959

**Berish “Bob” Strauch**, an early pioneer in microsurgery and longtime chair of plastic and reconstructive surgery at Montefiore/Albert Einstein, died Dec. 24, 2023. He was 90. He trained in general surgery at Montefiore Medical Center and hand surgery at Roosevelt Hospital. Before training in plastic and reconstructive surgery at Stanford University, he served in the U.S. Army as a captain in Fort Bragg, North Carolina, and Sagamihara, Japan. He joined Montefiore Medical Center, rising to chief of plastic surgery by 1978 and chair by 1987, a post he held until 2007. Under his leadership, Montefiore became a replantation center. He employed the toe-to-thumb transplantation technique and spearheaded research and advancements in microsurgery and peripheral nerve surgery. He patented the “Strauch clamp” to help surgically restore male fertility post-vasectomy and conducted innovative research in the field of pulsed electromagnetic fields to improve healing and lessen postoperative pain. He is survived by two children and seven grandchildren. His wife, Rena, preceded him in death by eight weeks.

### 1960

**Richard “Dick” Anderson**, a cardiologist for decades in Falmouth, Maine, died Aug. 23, 2023. He was 87. He trained



Richard “Dick” Anderson ‘60

at Mary Fletcher Hospital in Burlington, Vermont. He served as a general medical officer for three years in the U.S. Navy, including a year at the Naval Medical Research Institute in Bethesda, Maryland. In 1974, he joined Maine Cardiology Associates. He served on various medical association boards and as a clinical assistant professor. At his retirement in 1998, his staff lauded him: “To solve all the office problems, we need to clone Dr. Anderson.” He attended Falmouth Congregational Church for 46 years and sang in its choir. He enjoyed sailing and fly fishing. Dr. Anderson is survived by his wife, Bonnie, three children, and seven grandchildren.

**Rita Weinberg Clark**, a psychoanalyst, died Aug. 18, 2023. She was one of only two women studying premed in her class at Brooklyn College. In 1956, she married Dr. Julian Clark, with whom she shared a medical practice. She taught psychiatry residents at Maimonides Medical Center and was an expert witness at disability hearings. She wrote a book on ethics for the

American Psychoanalytic Association and became a regular speaker on the topic. A lifelong Brooklynite, Dr. Clark traveled widely, especially to Europe,



Rita Weinberg Clark ‘60

with a particular love of France. She was an avid cook and a generous host of memorable meals with family and friends. She is survived by two daughters and three grandchildren.

**Peter Benjamin Dunne**, chairman emeritus of neurology at the University of South Florida, died Aug. 28, 2023. He was 89. He trained at Bellevue Hospital and the Neurological Institute at Columbia before



Peter Benjamin Dunne ‘60

entering private practice with the Kaiser Permanente Medical Group in Los Angeles. He was an assistant clinical professor of neurology at the USC School of Medicine. Drafted

into the U.S. Army in 1968, he served in Vietnam, then at Letterman General Hospital, and was discharged in 1970 as a lieutenant colonel. He taught at the University of Vermont medical school before joining the founding medical faculty of the University of South Florida in 1973. He also spent many years in private practice and consulted on veterinary neurological cases at Busch Gardens and Lowry Park Zoo. After retiring from USF in 2007, he continued treating patients at James A. Haley VA Hospital. Dr. Dunne was a founding member of the M.S. Section of the American Academy of Neurology. He loved music, competitive running and tennis, and history. He is survived by his wife, Faith, two children, and a cat, Tula.

### 1961

**Robert “Bob” Scott**, an internist who practiced in Minneapolis, died Nov. 26, 2023. He was 88. He captained and quarterbacked the football team at Carleton College, where he set track and field records. He worked as a deputy coroner to support his



Robert “Bob” Scott ‘61

family while training at General Hospital (now Hennepin County Medical Center) in Minneapolis. While serving as chief of staff of Northwestern Hospital, he was instrumental in the merger of

Abbot Hospital and Northwestern Hospital. He later became chief of staff of the newly merged complex. Dr. Scott edited and was a coauthor of “Abbott Northwestern Hospital: 1882-Present, A Celebrated History.” He served on hospital foundation boards and was the moderator of Mayflower United Church of Christ. He enjoyed photography, cooking, skiing, and sailing. He is survived by his wife, Belle, three children, seven grandchildren, six step-grandchildren, and two great-grandchildren.

**John A. Talbott**, a psychiatrist who devoted his career to advocating for the care of vulnerable populations, especially unhoused people with mental illnesses, died Nov. 29, 2023. He was 88. He served as a captain in the



John A. Talbott '61

Medical Corps in Vietnam, after which he became an anti-war activist. He trained at New York State Psychiatric Institute and Presbyterian Hospital, where he was chief resident. He earned a certificate in psychoanalysis from Columbia's psychoanalytic center in 1971 and joined Cornell University in 1975 as a professor of psychiatry. He directed both the Payne Whitney Psychiatric Clinic of New York Hospital and the Dunlop-Manhattan Psychiatric Hospital, serving patients in lower Manhattan. He

advocated for community-based treatment of the mentally ill homeless, but after state hospitals were emptied and the money and political will to establish community treatment options were mostly abandoned, he called it a tragedy. “The chronic mentally ill patient had his locus of living and care transferred from a single lousy institution to multiple wretched ones,” he wrote in the journal *Hospital and Community Psychiatry* in 1979. The last third of his career was spent teaching at the University of Maryland and as director of the Institute of Psychiatry and Human Behavior at the University of Maryland Medical System. Decades ago, Dr. Talbott began reviewing restaurants in France and maintained a lively and extensive food blog, *John Talbott's Paris*. He is survived by his wife, Susan, two daughters, and six grandchildren.

## 1962

**John Kovach**, a physician-scientist focused on the causation and treatment of cancer, died Oct. 5, 2023. He was 87. He trained in internal medicine and oncology at Columbia before spending several years at the NIH. He marched on Washington in 1963 and attended Woodstock in 1969. He returned to Columbia as an assistant professor of medicine, where he managed early-phase cancer clinical trials. He joined the Mayo Clinic in Rochester, Minnesota, where he served as director of the Cancer Pharmacology Division, chair of the Department of Oncology, and director of the NCI-designated Mayo Comprehensive Cancer Center. From 1994 through 2000, he was executive vice president for medical and scientific affairs at the City of Hope National Medical Center in Duarte, California. He led

the successful effort for City of Hope to become a National Cancer Institute-designated cancer center. In 2000, he founded the Long Island Cancer Center (now Stony Brook University Cancer Center) in Stony Brook, Long Island. In 2005, he founded Lixte Biotechnology Holdings (now LIXTE),



John Kovach '62

a drug development company. Dr. Kovach's interests ranged from theoretical physics to pre-Columbian art. He is survived by his wife, Barbara, two daughters, a stepson, and two grandsons.

## 1963

**Jeanne (formerly Eugene) Hoff**, possibly the first openly transgender psychiatrist, died Oct. 26, 2023. She was 85. Dr. Hoff trained at Washington University in St. Louis. She trained with and then took over the New York City-based practice of pioneering sexologist and endocrinologist Harry Benjamin before opening her private practice in transgender and transition-related care. Dr. Hoff was a devout Catholic and active member of the gay Catholic organization Dignity/New York. At age 39, Dr. Hoff invited a television crew to document her gender affirmation transition and surgery. She felt she could not encourage her patients

to live openly, confidently, and free of shame without doing so herself and hoped to inform the medical profession of her difficulties in finding appropriate care. The resulting documentary “*Becoming Jeanne: A Search for Sexual Identity*,” aired on NBC. In the 1980s, Dr. Hoff sold her practice and joined a state outpatient clinic in Kingston, New York, where she treated severely disabled, long-term psychiatric patients. After moving to California she worked for the California Department of Corrections. Dr. Hoff argued successfully for the release of a transgender woman who had been institutionalized from age 15 to 30 because doctors had diagnosed her assertion of her gender identity as “mental retardation,” “delusion,” and “sexual perversion.” Dr. Hoff retired in 1999 after a death row prisoner at San Quentin attacked her. Her professional archives and correspondence were donated to the Kinsey Institute.

**John Thomas Murphy**, a neurologist, died Dec. 27, 2023. He was 85. After medical school, he embarked on a career in academic medicine, earning a PhD in neurophysiology from



John Thomas Murphy '63

McGill University and advancing to professor and chair of neurophysiology at the University of



Toronto. In 1980, Dr. Murphy transitioned to clinical medicine, entering a residency in neurology at age 42. He was a consulting neurologist at Toronto General Hospital and, in 1987, moved into private practice in Barrie, Ontario, Canada. After his retirement, he moved to Maryland, New Hampshire, and most recently to New Jersey to be closer to family. He loved nature, music, mathematics, and economics. Dr. Murphy is survived by his wife, Barbara, three children, and nine grandchildren.

### 1964

**Arthur Hoyte**, an OB/GYN and former commissioner of public health for Washington, D.C., known for his efforts to promote health care access for underserved communities, died Oct. 26, 2023. He was 85. Following training at San Francisco General Hospital and Columbia, he went into practice at Kaiser-Permanente Hospital in Oakland, California. In 1972, Dr. Hoyte was asked to join the Health Affairs Department of the U.S. Office of Economic Opportunity in Washington, D.C. He joined Georgetown medical school's faculty, where he served for 26 years in various faculty and administrative roles. Dr. Hoyte strongly advocated for access to medical education for those most excluded from the profession. In 1976, he initiated the Georgetown Experimental Medical Studies Program, a post-baccalaureate experience for minority students. The program has graduated more than 800 health care professionals, including 564 physicians. Dr. Hoyte took a one-year leave of absence in 1982 to serve as commissioner of public health for Washington, D.C., at the mayor's request. He retired from Georgetown Medical Center in

1999. He is survived by his wife, Maria, two children, and two grandchildren. He is also survived by his former wife, Stephanie, and their son.

### 1965

**Robert Carida**, quadruple board certified in internal medicine, cardiovascular disease, echocardiography, and lipidology, died Oct. 20, 2023, in Santa Margherita Ligure while on a tour of Italy, the birthplace of his parents. He was 85, and the cause of death was COVID. Dr. Carida trained at St. Vincent's Hospital in Manhattan. He served as a U.S. Air Force captain in Victorville, California, for two years. From 1966 to 1968, he served as a base physician and psychiatrist at George Air Force Base. A specialist in preventive



Robert Carida '65

medicine, Dr. Carida spent the next 30 years practicing cardiology in Broward and Palm Beach counties. He focused on lipidology for the last few decades of his practice and was among only 200 physicians who passed the first American Board of Clinical Lipidology exam in 2009. He was 70 at the time and healing from a fractured hip. He again passed the boards at 80 years old. He loved the arts, especially opera. He is survived by his wife, Karen, three children, and two grandchildren.

**Patrick Dowling**, an orthopedic surgeon and team doctor to the U.S. Olympic freestyle ski team, died June 22, 2023, at Maine Medical Center. He was 81. After training in Manhattan, Portland, and Pittsburgh, he served from 1969 through 1972 as lieutenant commander in the U.S. Navy stationed at Chelsea Naval Hospital. He and his wife, Bonnie, moved their young family to Cape Elizabeth, Maine. He taught arthroscopy at annual physician clinics. He held physician leadership positions at Maine Medical Center and Mercy Hospital. In 1978, he and a small group of fellow doctors founded the Medical Mutual Insurance Company of Maine. Dr. Dowling chaired its board until 2002, when he retired from his orthopedics practice to become the company's CEO. While practicing medicine, Dr. Dowling served as a U.S. delegate to the Federation of International Skiing (FIS) from 1982 through 1994. He represented the U.S. and freestyle skiing at FIS Congresses across six continents. He attended the Olympics in an official capacity in Calgary, Albertville, and Lillehammer. As team doctor to the U.S. freestyle ski team he was instrumental in establishing the team's physician pool program. He was also an avid golfer. He is survived by four children and eight grandchildren.

**Howard Ginsburg**, former chief of surgery at LaGuardia Hospital in Forest Hills, where he practiced for over 30 years, died Nov. 5, 2023, at age 83. Dr. Ginsburg was house goalie for Eliot House at Harvard University as an undergraduate and served as a lieutenant commander in the U.S. Navy. He is survived by his wife, Judi, three children, and three grandchildren.

### 1970

**Isaac Craig Henderson**, a medical oncologist who made substantial conceptual and leadership contributions over five decades to the translational and clinical research, evaluation, and treatment of breast cancer, died Dec. 26, 2022. He was 81. After traveling through India on a Fulbright fellowship, he paid for medical school by working as a taxi driver in New York City. Following internship and residency in New York, he served for two years in



Isaac Craig Henderson '70

the U.S. Public Health Service as a research associate at the NIH before completing his training at Dana Farber Cancer Institute. He served as founder and director of the Breast Evaluation Center at Harvard before joining the University of California, San Francisco, faculty. He was deputy director of the San Francisco Cancer Center in its earliest stages before moving on to entrepreneurial roles in the pharmaceutical industry. Dr. Henderson was a principal investigator on the initial phase 2 study of Herceptin. He was an early voice urging the evaluation of high-dose chemotherapy and bone marrow transplants for breast cancer patients; was the principal investigator of the national study establishing the benefits of paclitaxel in early breast cancer treatment; and directed the development of

# in memoriam

Doxil. Dr. Henderson devoted a considerable amount of time to volunteer work and philanthropy and served for more than 20 years on the Board of Directors for the San Francisco Opera. His generosity was reflected in how he and his wife, Mary, opened their home to guests, including hosting VP&S Alumni Association meetings for several years. Dr. Henderson is survived by his wife, two children, and four grandchildren.

## 1971

**Arthur Sprenkle** of Seattle, Washington, died May 25, 2023, at age 77. He was raised in Pennsylvania and attended Columbia College on a basketball scholarship. While in medical school, he competed for the Old Blue Rugby team. He was an allergist with practices in Seattle and Everett. He served three terms as a state legislator. During his terms he sponsored the legislation that created the Washington Health Care Authority and the Waste Not Washington Act. His family said his life beyond the facts put to paper “was the Art we all loved. He was smart and kind. He never lost his curiosity or his



Arthur Sprenkle '71

eagerness to learn. He ate with gusto, danced with enthusiasm, and sang with Moby and Gordon Lightfoot. He had strong opinions and never shied from a debate.

He was an animal lover, a tomato whisperer, and the guy who most always took the path less traveled. Art lived every single day. Art believed a single person could make a difference. He believed in the world, and he just wanted to make it a little bit better. And he did.” He is survived by his wife, Marianne Lile, three children, and four grandsons.

## 1974

**Jerry Seals**, board-certified in internal medicine and infectious diseases, died Oct. 13, 2023.



Jerry Seals '74

He was 76. He trained in internal medicine residency programs at Harlem Hospital. He served the U.S. Navy as a lieutenant commander during a two-year subspecialty program in infectious diseases at the Centers for Disease Control and Prevention in Atlanta, followed by an additional fellowship in infectious diseases at Montefiore Hospital in the Bronx. He and his wife, Beverly (White) Seals, a U.S. Department of Labor trial attorney, moved to Columbia, Maryland, in 1980, where he started his medical practice. In 1985, Dr. Seals was elected president of the medical staff for Johns Hopkins Howard County Medical Center, where he also served for many years as director of infectious diseases.

Dr. Seals was a loyal Alpha Phi Alpha fraternity member of the Greater Washington Boulé. He provided free medical services to uninsured residents through the Health Alliance Program and served on the Board of Directors for Erickson Senior Living. Dr. Seals is survived by his wife, a daughter, and a grandson.

## 1977

**Elizabeth “Betsy” Auchincloss**, emerita professor of clinical psychiatry at Weill Cornell Medicine, died Oct. 26, 2023, after an extended illness. A talented athlete, she played on Yale’s first women’s basketball team and first women’s tennis team as an undergraduate. She trained at Cornell and the Columbia Center for Psychoanalytic Training and Research, where she attained the title of training and supervising analyst before embarking on more than 40 years on the Weill Cornell faculty. She served as the vice chair for education, the inaugural Aaron Stern MD PhD Professor of Psychodynamic Psychiatry, and, for 17 years, the residency program training director. She was author of “The Psychoanalytic Model of the Mind,” co-editor in chief of “Psychoanalytic Terms and Concepts,” and editor of “The Quiet Revolution in American Psychoanalysis.” She was a champion at Boggle, Bananagrams, Wordle, and the New York Times crossword and spelling bee. She is survived by her husband, psychoanalyst Dr. Richard Weiss, three children, and six grandchildren.

## 1979

**Donald Kurth**, former mayor of Rancho Cucamonga, California, died Oct. 4, 2023. He was 74. He pursued a fellowship in orthopedic surgery at Oxford

University, completed his residency at Johns Hopkins University, and trained at the UCLA Hospital Medical Center. His family said Dr. Kurth became bored with orthopedic surgery and pursued board certification first in emergency medicine and then in addiction medicine. He owned the Urgent Care Center in Rancho Cucamonga for more than 20 years and directed Loma Linda University’s Behavioral Medicine Center for 12 years. He served as an assistant professor at Loma Linda University School of Medicine, with appointments in preventive medicine and psychiatry. He also held a faculty appointment in the Department of Health Policy and Management at the Loma Linda University School of



Donald Kurth '79

Public Health. Dr. Kurth was elected president of Rancho Cucamonga’s Chamber of Commerce in 1994 and became director of the Cucamonga County Water District in 1996. He joined the City Council in 2002 and was mayor for one term in 2006, during which time he improved the public safety response time and dispatch for the Rancho Cucamonga Fire District. His interests included wildlife and geology. Dr. Kurth is survived by his wife, Dee, and two daughters.

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## Match Day 2024

**Members of the VP&S Class of 2024**—a class that began medical school during the first months of the pandemic—opened their residency match envelopes in the Hudson Lounge at 50 Haven Avenue March 15. They were among a record 41,000 medical students participating nationwide in this year’s match.

The most popular matches for VP&S students were internal medicine, psychiatry, orthopedic surgery, anesthesiology, and pediatrics.

“I’m ecstatic with my match,” said Grace Plassche, who matched in orthopedic surgery at Columbia. “From day one, I’ve learned from the people around me, from my classmates to my professors, and the way they’ve taught us to be not only good doctors but good humans has just been beyond anything I could have imagined.”

Adithya Kannan, who matched in neurological surgery at the University of Wisconsin, says the supportive environment and faculty at VP&S have prepared students for the next phase of their journey as clinicians. “It comes down to the people—we all matched well because of the support of Columbia’s programs that shepherded us through,” he said. “The people here took me under their wing and supported me when things got tough. When I went on away rotations, we just felt ready for the challenges ahead. The professors here make sure you’re ready. It’s going to be challenging, but I’m ready.”

**Photos by Eileen Barroso**