Columbia Medicine

Columbia University Vagelos College of Physicians & Surgeons

FALL/WINTER 2019

Dean to Step Down

After 14 years, Lee Goldman to leave leadership roles

The Legacy of Kira Sergievsky

Her epilepsy inspired her family to establish the Gertrude H. Sergievsky Center

SUICIDE

SCIENTIFIC UNDERSTANDING, INNOVATIVE IDEAS FOR PREVENTION, AND HOPE

JÖRG MEYER

Dear Readers,

In my 2015 book, "Too Much of a Good Thing," I described four key survival traits that have enabled humans to stay alive for over 200,000 years. One of these was the hypervigilance needed to avoid getting killed—no small feat in prehistoric times, when violence caused up to a quarter of human deaths. Though it seems counterintuitive, some of the mental illnesses that can precipitate suicide derive from the related survival traits: the anxiety and phobias needed to avoid life-threatening situations, as well as the withdrawal and temporary depression that give us time to recuperate after a loss. We also need to know when to fight, when to flee, and when to be submissive if we can't win or escape.

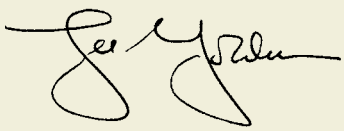
Over time, however, violence has declined, and the world has gotten much safer. Unfortunately, this decline in violence is partially offset by the fact that suicide is now about twice as common as murder in the United States today. More U.S. veterans and active-duty service members die each year from suicides than the total American military deaths in Afghanistan and Iraq. Even when guns are involved, suicides outnumber murder and all other causes combined. As a result, the same hypervigilant, fear-driven survival mechanisms that helped our ancestors know, learn, and remember how to avoid getting killed now are counterproductive because of the anxiety, phobias, depression, and even suicide that they can cause.

For individuals, the pain caused by sadness, hopelessness, and depression—inadequately treated if treated at all—is what usually leads to suicide. Suicide also can be linked to losing social contact with family and friends (egoistic suicide), to the failure to achieve desired goals (anomic suicide), and to frustration about an inability to fight the system and make things better (fatalistic suicide). Suicide is far more common among people who abuse drugs and alcohol. The alcohol and drugs probably directly contribute to the risk of suicide, but we also know that drug and alcohol abuse can be precipitated by the same emotions that precipitate suicide.

For nearly 200,000 years, our ancestors fought a veritable arms race between developing more sophisticated ways to kill and designing better defensive strategies to avoid getting killed. The good news is that the defense is winning. The bad news is that the balance has tipped to the point where our defenses against being murdered are now precipitating anxiety and depression that are killing more of us than the violence they were designed to avoid. Suicide is the 10th most common cause of death in the United States and the seventh leading cause of lost years of life. Depression is the fifth leading contributor to years lived with disability.

Regardless of the reasons behind the statistics, we all can agree that these numbers are too high. I invite you to explore the articles inside this issue to learn about the progress being made at Columbia to understand and prevent suicide. Our researchers and experts are doing their part to turn the hypervigilance of our ancestors into research and new treatments that will reduce the number of lost years and lost lives.

With best wishes for a happy and healthy 2020,



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ON THE COVER: Illustration by Scott Bakal

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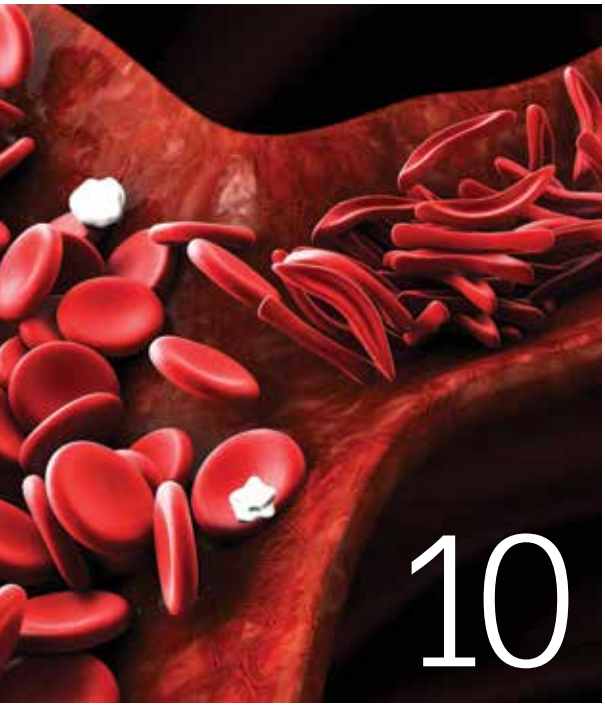

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Letters

Remembering a Mentor

I was very saddened to read in the spring/summer edition of *Columbia Medicine* of the passing of Ralph James Veenema, MD. He was one of my mentors during my 1966-1970 residency at Squier Urological Clinic. He was a very meticulous surgeon with a very precise analytical mind. When we presented surgical cases to him he would ask penetrating questions re: the reasoning behind our choices. In cancer cases, he would stress whether we were operating for "curative" or "palliative" reasons. In dissection, he abhorred blunt finger dissection and preferred precise instrument use for controlled dissection. He did not favor the classic suprapubic prostatectomy because it was not precise or controlled. He much preferred the retropubic transcapsular approach where you dissect under direct vision. He even perfected a specialized retropubic prostate retractor (named after him). After I entered private practice in Miami, Florida, I would, at times, have surgical cases where I realized I was analyzing and planning a procedure and asking myself the same questions that Dr. Veenema asked of us during these residency years. He had a great influence on me and many of his other residents.

Ian Nisonson'62
Via email

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Editor's Note


BRIAN WINKOWSKI

Remembering a Staff Member

Inside this issue you will read about "Life After Suicide," the book Jennifer Ashton'00 wrote about her family's recovery from a loved one's death. Stigma helps hide many suicides, but they touch more people than many of us realize. In July, the *Columbia Medicine* staff endured its own experience when our editorial assistant for 2½ years, Avichai Assouline, died by suicide. He was a talented writer, a gifted filmmaker and screenwriter pursuing a master's degree, and a valued contributor to the magazine in myriad ways.

In the last three months of his life, Avi had opened up about being diagnosed with borderline personality disorder. Echoing Dr. Ashton's rationale for writing her book, Avi decided to talk about his diagnosis to reduce the stigma associated with mental illness and suicide ideation.

Avi died when living with his mental illness became unbearable, and even though his byline does not appear in this issue, his inspiration informs every word of it. *—Bonita Eaton Enochs*

News from around the Vagelos College of Physicians & Surgeons

VP&S news

Lee Goldman Announces Plans to Leave Posts in 2020

After 14 years in leadership positions at VP&S and CUIMC, Lee Goldman, MD, will step down as executive vice president and dean of the Faculties of Health Sciences and Medicine and chief executive of the medical center on June 30, 2020. He is the longest-serving dean since Willard Rappleye served as dean from 1930 to 1958.

When Columbia President Lee Bollinger announced Dr. Goldman's plans to step down, he recalled how Dr. Goldman was already a deeply admired figure in academic medicine when he arrived to lead the medical center and medical school in 2006 after chairing the Department of Medicine at UCSF following positions at Harvard and Brigham and Women's Hospital. "His name was associated with diagnostic approaches he developed for predicting the cardiac risk of noncardiac surgery and for determining which patients with chest pain require hospitalization, and he was at the forefront of creating the modern concept of hospitalists—innovations that transformed the delivery of medical care."

His career flourished as dean of VP&S and chief executive of CUIMC. President Bollinger cited a host of initiatives that have strengthened CUIMC. He singled out his fundraising success—more than $2.5 billion in donations since 2006—and mentioned his stewardship of intellectual leadership that resulted in the launch of the Precision Medicine Initiative and the subsequent creation of the Institute for Genomic Medicine.

"Dr. Goldman's impact on the medical center's faculty will be felt for many years to come," said President Bollinger. He committed $55 million to the hiring of women and underrepresented minorities and facilitated the establishment of the Virginia Kneeland Frantz Society for Women Faculty and the Kenneth A. Forde Diversity Alliance. Four new academic departments were formed during the Goldman era: Neuroscience, Systems Biology, Emergency Medicine, and Medical Humanities & Ethics. On the clinical front, Dr. Goldman's tenure saw the creation of a modern Faculty Practice Organization, expansion to Westchester, New York, and other parts of Manhattan, and enhancement of the clinical collaboration with NewYork-Presbyterian Hospital. The growth of research funding is a testament to the school's research progress under Dr. Goldman's leadership.

Lee Goldman and Roy Vagelos at the VP&S graduation in 2018

In education, President Bollinger described Dr. Goldman's legacy as an enduring one. "From the opening of the spectacular new Roy and Diana Vagelos Education Center, to the adoption of an innovative curriculum and state-of-the-art simulation training, and on to the replacement of need-based loans with the scholarships essential to assembling a diverse student body, the Vagelos College of Physicians and Surgeons is transformed."

In an email to the CUIMC campus in May, Dr. Goldman shared his reasons for stepping down in 2020. "My decision is driven by both personal and professional reasons. By a year from now, I will be 72 and have spent nearly 20% of my life as dean here. As deeply satisfying as that experience has been for me, it will be time for me to come full circle and re-focus on the intellectual priorities that first led me to a career in academic medicine." He added a statement of confidence that VP&S and CUIMC—"both of which were newly named based on truly transformative philanthropy during the past two years"—will continue to thrive and are "ready for their next acts."

"We have worked hard to create a supportive environment in which everyone can succeed. Focus group feedback from faculty, staff, and trainees has informed initiatives to improve the electronic medical

record, grants management, parental leave policies, staff career opportunities, child care, and the learning environment," Dr. Goldman wrote.

He added an acknowledgement of the advantages of having an integrated health sciences campus. "The successes of the Mailman School of Public Health, the College of Dental Medicine, and the School of Nursing have paralleled the success at VP&S, with curricular innovations and growing academic programs. We have made major investments in our campus, not only the new Vagelos Education Center but also a new, world-class building for the School of Nursing, the Hammer learning center, Schaefer gallery, and Alumni Auditorium. All together, we have built or renovated nearly 1.7 million square feet of space for our students, clinicians, researchers, and staff."

Calling himself a temporary steward of VP&S and CUIMC, Dr. Goldman added, "Success is a team effort, and I will always be personally grateful to everyone whose time, energy, and resources have contributed to the success of VP&S and CUIMC."

Dr. Goldman will remain on the VP&S and Mailman School of Public Health faculties after he steps down from his executive positions.

Ron Drusin, Education Dean, Steps Down

Across nearly six decades at Columbia, Ronald E. Drusin'66 has been a medical student, resident, cardiology fellow, cardiologist, teacher, alumnus, and administrator at the Vagelos College of Physicians and Surgeons.

"It has been an extraordinary experience to watch the evolution and growth of the medical school, health sciences campus, and hospital," says Dr. Drusin, the Rolf H. Scholdager Professor of Medicine at CUMC, who stepped down as vice dean for education in December 2019 after 11 years in the position.

JÖRG MEYER

Dr. Drusin, who grew up in Long Beach, New York, was torn between a career in journalism or medicine, choosing the latter because "I liked science and the role a physician plays in service."

As an undergraduate student at Union College, he spent a winter break writing a genetics paper at the library at Columbia's medical school. "At that time, I never thought I would spend all my days at Columbia," he recalls.

After medical school, Dr. Drusin completed his residency at Columbia. He served in the military as a commissioned officer from 1969 to 1971 at the National Communicable Disease Center, now the Centers for Disease Control and Prevention, before returning to Columbia for a cardiology fellowship.

Dr. Drusin joined the VP&S faculty in 1973, honing his skills as a cardiologist and forming a practice with two cardiologists. He became the first medical director of the heart transplant program that opened at what was Columbia-Presbyterian in 1977.

"My career took new roads as new opportunities arose," says Dr. Drusin, who began chairing the VP&S curriculum committee in the 1980s and held the role for more than 30 years. He helped to steer and implement two curriculum revisions, in 1991 and 2009.

The changes in the curriculum in the 1990s were radical, eschewing department-based courses for courses integrating medical topics with basic science concepts and clinical skills. The Center for Education Research and Evaluation was created to facilitate implementation and evaluation of the new curriculum, to foster education research on campus, and to help advance the reputation of the school and faculty nationally.

"The 2009 curriculum changes shortened classroom time to open more opportunities for students to explore and understand their individual passions in medicine and the different paths they could take," says Dr. Drusin. New programs included a required scholarly project to help students nurture a research interest and the Columbia-Bassett program to immerse a group of students in the delivery of health care to a large, mostly rural population.

Lisa Mellman, MD, senior associate dean for student affairs, describes Dr. Drusin as an outstanding facilitator. "He has built an excellent team of people who are passionate about medical education, who work well and collaborate together."

Dr. Drusin calls changes on campus rapid in recent years. "We're all proud of having the Vagelos Education Center, and I'm grateful to the Vagelos family for the building and for our scholarship program," says Dr. Drusin. "We've incorporated the building's simulation center into virtually all clinical programs and our Ready 4 Residency course."

Through the changes and career moves, one constant has been Dr. Drusin's bond with his family. He met his wife, Janet van Adelsberg, when she was a resident at Columbia. She served on the VP&S faculty until 2000 and is currently a vice president at GlaxoSmithKline. Their daughter, Madeleine Drusin'16, is a fourth-year resident in the combined Columbia-Cornell otolaryngology program, and daughter Olivia is an artist.

"It's a real privilege to have played a role in the transplant program that's now a premier program in the country, to take care of patients with difficult conditions, and to have an impact on the values and skills our students learn, giving them the best opportunities for their individual growth," says Dr. Drusin.

— *Rose Spaziani*

Lisa Kachnic: New Chair of Radiation Oncology

Lisa Kachnic, MD, one of the nation's leading radiation oncologists and a pioneer of new approaches to optimize the effectiveness of radiation therapy, has been named chair of the Department of Radiation Oncology at VP&S, chief of the radiation oncology service at NewYork-Presbyterian/CUIMC, and the Chu H. Chang Professor of Radiation Oncology. She joined Columbia Sept. 1, 2019. She also serves as associate director for cancer network strategy in the Herbert Irving Comprehensive Cancer Center.

CHARLES MANLEY

Dr. Kachnic joined Columbia from Vanderbilt University School of Medicine, where she was professor and chair of radiation oncology. She previously served on the radiation oncology faculty at Massachusetts General Hospital and Boston University School of Medicine. She is a fellow of the American Society for Radiation Oncology.

A past president and current governor of the American Board of Radiology, Dr. Kachnic is internationally known for her clinical trial leadership positions in the National Cancer Institute and its cooperative group research bases. She is widely recognized for gastrointestinal research that has transformed the standard of care for several cancers by integrating novel radiation delivery techniques. She is vice chair of the radiation oncology committee and co-chair of the ano-rectal subcommittee for the SWOG Cancer Research Network research base, where she serves as the multimodality executive officer.

Dr. Kachnic earned an undergraduate degree from Boston College and a medical degree from Tufts University School of Medicine. She completed a residency in radiation oncology at Harvard University, where she was chief resident in her last year of residency.

Anne Armstrong-Coben: New Senior Associate Dean for Admissions

Anne Armstrong-Coben, MD, associate professor of pediatrics, became senior associate dean for admissions in July after serving as interim dean for nearly a year. She has been a member of the medical school's admissions committee since 2011 and briefly served as assistant dean for admissions.

"I am looking forward to continuing the VP&S tradition of identifying brilliant, humanistic individuals who grow together individually and as a class on the journey from student to doctor and then go on to contribute to medicine in unique and profound ways," says Dr. Armstrong-Coben, a 1989 graduate of VP&S.

During her interim year as dean, she convened diverse faculty to form an Admissions Committee approved by the VP&S Faculty Council to make all admissions-related decisions. Together with the committee, she selected the VP&S Class of 2023, a group of students that includes musicians, athletes, and researchers. Ten percent of the class members come from families of first-generation college students.

Dr. Armstrong-Coben completed her residency in pediatrics at Columbia before joining the Columbia faculty in 1992. She practiced primary care pediatrics in Washington Heights in the hospital's Ambulatory Care Network and developed programs for homeless adolescents and children in foster care.

She has worked closely with VP&S students as an advisory dean since 2011 and as associate director of community pediatrics overseeing service-learning. She has received national recognition for curriculum development and implementation in the areas of community pediatrics and service-learning. She also received the Humanitarian of the Year Award from the Hope for Children Foundation and the Humanism in Medicine Award from the Arnold P. Gold Foundation.

Donald Quest, MD, the J. Lawrence Pool Professor of Neurological Surgery, also joined the admissions office as assistant dean for admissions, a role he filled on an interim basis during the 2018-19 academic year. A 1970 graduate of VP&S, he joined Columbia's faculty in 1978. He was one of the first medical education faculty members to take part in the Advisory Dean Program launched in 2003 and continues to participate in the program as an assistant dean for student affairs.

AMELIA PANICO

Anne Armstrong-Coben, third from left, posed at the 2019 White Coat Ceremony with some of the Class of 2023 members she helped choose while interim senior associate dean for admissions.

The Legacy of Kira Sergievsky: Her Health Inspired Sergievsky Center

Kira Sergievsky was from a family whose history reads like a novel, but people who remember her from her time at Columbia only knew her as an unassuming clerk in the Department of Neurology medical library. She died Jan. 17, 2019, in Florida after a lifetime of severe epilepsy and partial paralysis. She was 80 years old.

Ms. Sergievsky, who inspired the establishment of Columbia's Gertrude H. Sergievsky Center in 1977, was the daughter of a swashbuckling pilot and a shy heiress. Surgery intended to treat her severe epilepsy left her partially paralyzed, prompting her parents to found the Sergievsky Center, named for Kira Sergievsky's mother, to study epilepsy and other neurological diseases and develop better treatments.

Richard Mayeux, MD, who is now the Sergievsky Professor of Neurology, Psychiatry, and Epidemiology and chair of the Department of Neurology, knew Ms. Sergievsky when he was a neurology resident. "I never knew her last name, but most of the other residents also knew her," says Dr. Mayeux. He did not know about her influence on his field until after he had been appointed to the Sergievsky professorship decades later.

Ms. Sergievsky's father, Boris Sergievsky, served in the Russian Air Force in World War I, then fought on the Tsarist side in the Russian Civil War before leaving for America. While working as a test pilot for fellow expatriate and former school friend Igor Sikorsky, he delivered an airplane to the Hochschild family, which had a vast mining fortune. The young Gertrude Hochschild fell hard for the dashing former Tsarist pilot, and the two soon married.

Their son, Orest Sergievsky, became a famous ballet dancer. Kira Sergievsky's disability limited her movement and speech, but she excelled at her work in the medical library. "She was very friendly, very smart, and always very helpful in the library," Dr. Mayeux says. During his residency, Dr. Mayeux, a chronic insomniac while on call at the hospital, would give lists of books and journals to the head librarian for the nights he was on call, and Ms. Sergievsky would help retrieve them. Between consults Dr. Mayeux would find his materials waiting for him in the reading room, along with a cookie.

Witnessing their daughter's struggles, Kira Sergievsky's parents decided to use their money to help fight epilepsy, with an emphasis on understanding the condition and finding better ways to prevent and treat it. Mervyn Susser, MB, BCH, chair of Columbia's epidemiology department at the time, persuaded them to set up the Sergievsky Center as an independent unit within the university, with its director answering directly to the dean. "I took over after Mervyn retired," says Dr. Mayeux, who adds that the Sergievsky family has been as generous in approving the direction of the center as in funding it. "I told the family that I was interested in continuing the work on epilepsy, but we were going to broaden the center's perspective, and they were very happy with that."

The Gertrude Sergievsky Center now integrates clinical, epidemiological, and genetic research that focuses on diseases of the brain and nervous system throughout the life cycle.

— Alan Dove

AMELIA PANICO

About the Class of 2023

140 students

- 115 MD students
- 12 MD-PhD students
- 10 Columbia-Bassett students
- 1 PhD-to-MD student
- 2 oral and maxillofacial surgery students

Scholarships and financial aid

- 86% received some form of financial aid
- 29% received scholarships without any parental contributions to tuition or living expenses

70 women/70 men

Age range: 20-36

30 underrepresented minorities (21%)

7,914 total applications through AMCAS and 7,080 secondary applications (including 1,316 from applicants underrepresented in medicine)

1,073 interviews conducted (including 215 for applicants underrepresented in medicine)

63 colleges represented

32 states represented

16 foreign countries represented (Brazil, Canada, China, Colombia, Ethiopia, India, Iran, Japan, Korea, Nigeria, New Zealand, Pakistan, Poland, Russia, Sweden, and Venezuela)

News in Brief

MELANIE EINZIG

Velocity, Columbia's Ride to End Cancer, raised a record $1.5 million in its third ride in October 2019. More than 1,000 riders, volunteers, and supporters participated in the event, which raises funds to support cancer research and patient care at the Herbert Irving Comprehensive Cancer Center. The photo above shows participants who biked from the 10-mile mark to the medical center.

Rui Costa, DVM, PhD, and **Anil K. Rustgi, MD,** have been elected to the National Academy of Medicine. Members are elected by their peers in recognition of outstanding achievement, one of the highest honors bestowed in the field of medicine. Drs. Costa and Rustgi are among 100 new members elected in 2019. The contributions of Dr. Costa, an expert on how the brain learns and initiates movement, extend to many key areas of neuroscience. His work on the brain circuitry that drives movement initiation has brought critical understanding to movement disorders such as Parkinson's disease. He has developed powerful new approaches that combine genetics, cutting-edge imaging technology, and brain-machine interfaces. He is director and CEO of the Mortimer B. Zuckerman Mind Brain Behavior Institute at Columbia and professor of neuroscience and of neurology at VP&S.

Rui Costa

Dr. Rustgi, director of the Herbert Irving Comprehensive Cancer Center at Columbia and NewYork-Presbyterian/CUIMC, has made substantial contributions to the fundamental molecular understanding of gastrointestinal cancers. He and his collaborators use genetically engineered mouse models and novel 3D culture models to investigate the role of cancer-causing genes and tumor suppressor genes in the pathogenesis of gastrointestinal cancers, including esophageal, colon, and pancreatic cancers. Dr. Rustgi also is associate dean of oncology and the Irving Professor of Medicine at VP&S.

BARBARA ALPER

Anil K. Rustgi

Gordana Vunjak-Novakovic, PhD, University Professor, has been elected to the American Academy of Arts and Sciences. In her Laboratory for Stem Cells and Tissue Engineering at the medical center, Dr. Vunjak-Novakovic creates new ways to engineer human tissues that could repair damaged organs, help scientists study development and disease, and provide faster methods to test new drugs. Her research has potential to develop new materials and techniques to grow bone grafts for facial reconstruction, create heart patches that could repair damage after a heart attack, and improve the way lungs are recovered for transplantation. The lab is designing "organs on a chip"–miniature tissues and organs that mimic human physiology–to test new drugs and personalize patient treatment. Dr. Vunjak-Novakovic, also a member of the National Academy of Medicine and the National Academy of Engineering, has appointments in medicine at VP&S and in engineering at Morningside.

JÖRG MEYER

Gordana Vunjak-Novakovic

David Buchholz, MD, has joined Columbia as senior founding medical director for primary care. Working with ColumbiaDoctors and NewYork-Presbyterian, he will lead an expanded primary care strategy that will provide greater access for patients to primary care services across the New York metropolitan area, with the goal of improving clinical care for patients and their families. Dr. Buchholz joined Columbia from Premera Blue Cross near Seattle, where he was medical director of provider and customer engagement. He previously served as executive medical director of UCSF Primary Care in San Francisco.

Goal of MD-PhD Student Research: Improve Patient Care

Graduate student Ben Schrank's paper in Nature started with a hunch. Dr. Schrank, a student in Columbia's MD-PhD program, and his mentor Jean Gautier, PhD, were looking for new proteins that might be involved in DNA repair. "If you're able to inhibit DNA repair, you could make cancer treatments more effective," says Dr. Schrank, who received his PhD degree in November 2018.

A mass spectrometry machine analyzed a batch of frog DNA and produced a list of more than 100 proteins that could potentially play a role. Two possibilities—Arp2/3 and actin—stood out to Dr. Schrank and Dr. Gautier, professor of genetics & development in the Institute for Cancer Genetics, who has studied DNA repair for years.

"Our project was high risk, high reward," says Dr. Schrank. "There was no precedent in the scientific literature that explained active roles for Arp2/3 and actin. It was a gamble on my part. Jean and I talked and he encouraged me to do the experiments."

Those experiments revealed that Arp2/3 and actin are critical conductors of DNA repair. The proteins push the ends of broken DNA into clusters where repairs are made, and repair falters when damaged DNA can't be moved.

Discoveries like this underscore the mission of Columbia's MD-PhD program. Student trainees hone their research skills in the labs of faculty mentors, pursuing scientific findings that may be translated into clinical practice. The program matriculates 12 to 15 students per year, and the program currently has 104 MD-PhD students, from those in their first year to those in their final year of the program.

"The goal of the MD-PhD program is to train the next generation of biomedical leaders," says Steven L. Reiner, MD, director of the MD-PhD program. "The curriculum emphasizes both clinical and scientific education, enabling our graduates to become research innovators and play a key role in the translation of scientific findings to clinical practice."


Ben Schrank

SUSAN CONOVA

Dr. Schrank submitted his research to Cell and spent eight months interacting with the journal's editors and revising the draft before the paper was turned down. Rejection stung, but Dr. Schrank pressed on. The paper was strengthened through multiple revisions and was ultimately accepted by Nature with Dr. Schrank earning a first author credit.

Dr. Schrank plans a career in radiation oncology, an area closely tied to the research he has conducted. Since completing his clinical clerkships, he's come to fully appreciate the thoughtful discussions happening at Columbia around patient care and research. "The conversations are not just about how we should treat patients," he says. "They're about why we're providing this treatment for a patient. What's the evidence for this treatment?" He believes the MD-PhD program is preparing him to go beyond practicing medicine to bring change to the field—and that change comes from knowing how to ask the right questions and find the answers in science.

"The beauty of research is it's very autonomous," says Dr. Schrank. "I came into the lab day and night. I had a list of experiments and ran them simultaneously. All of my experiments went into the paper."

JEFFREY SCHIFMAN

Building Resilience as a Research Scientist

MD-PhD students are expected to publish their work. The process can be grueling. There are no guarantees when conducting research. Aha moments are few and far between.

"The process of conducting research and turning it into a paper is long and a lot of it is out of your control," says Matthew Decker, an MD-PhD student in the lab of Lei Ding, PhD, assistant professor of rehabilitation & regenerative medicine and of microbiology & immunology. "There are many ups and downs, but they're also a valuable part of your training."

In addition to publishing their research, MD-PhD students have to navigate a program that starts with medical school, then moves to the laboratory, and then back to medical school.

"MD to PhD is like switching to a different part of the brain but in an enjoyable way," says Dr. Decker, who received his PhD in September 2018. "As a PhD student, you are creating new knowledge in a narrow field. As a medical student, you're learning an incredible amount from a huge field. These are two different modes of learning but doing both gives you a great combination of skills invaluable to a doctor and research scientist."

During the initial MD portion, students follow the same curriculum as traditional medical students but also rotate in labs to find the right research mentor. "I wanted to work with an investigator beginning his career," Dr. Decker explains, "someone who would trust me with big ideas and projects."

Matthew Decker

Dr. Decker studied how the body supports production of hematopoietic stem cells (HSCs), which give rise to all blood cells. With the help of machinery that can sort through tens of millions of cells, Decker discovered that a growth factor that keeps HSCs healthy is supplied by a surprising source, the liver. These findings could inform how HSCs are stimulated for therapeutic use and lead to improvements in bone marrow transplantation.

After 18 months of research, Dr. Decker began preparing a manuscript, which took another month. In the weeks after he submitted the manuscript to Nature and waited for feedback, he continued to conduct experiments and gather more data. The manuscript was turned down, so he submitted it again, this time to Cell, and received another rejection.

"One thing I've learned is that sometimes people will not be interested in the things you're interested in and that's not a reflection of the worth of your research," says Dr. Decker.

He used the comments from the journals, as well as data from ongoing experiments, to improve the paper. Next time he submitted the research, it was accepted by Science.

Feeling of Freedom

Heather Lee, like Dr. Decker, is an MD-PhD student in Dr. Ding's lab, where she has room to branch out. She is the only one in the lab investigating the behavior of genes within HSCs instead of examining their environment.

"It's a great feeling to come to the lab and have your own project, decide the research questions, and then figure out how to answer them," says Dr. Lee, who received her PhD in November 2019. "You can't find these answers on the Internet."

What Dr. Lee studies may one day impact treatments for leukemia and other types of blood diseases. She studies the factors that control HSCs: What causes them to generate more stem cells or go on a different path and develop into more mature cells. These processes often go awry in blood cancers.

In her paper in Nature Cell Biology, Dr. Lee identified a new factor—called m6a methylation—that pushes HSCs to become mature cells but is not needed once cells have matured. "Our study and others suggest it may be possible to develop m6A-targeted therapies against leukemia cells without damaging HSC function," she says.

Though excited by the findings, she also experienced some uncertainty. Her research contradicted a long-held assumption among scientists that removing m6A alters gene expression; Dr. Lee found no such change.

"I had a moment of doubt," says Dr. Lee, whose paper was rejected by two other journals before it was accepted for publication. "I questioned my research at first but ultimately I had to trust myself."

Trusting her gut led Dr. Lee to science in the first place, combined with the example of her parents who were graduate students when they met. In college, Dr. Lee conducted research for three years in an immunology lab and planned to apply to medical school. Her faculty mentor encouraged her to consider an MD-PhD program, something she had not known existed. Going through the program has only solidified her interest in a career as a medical scientist.

Heather Lee

JEFFREY SCHIFMAN

"My goal is to have a career combining research and medicine," says Dr. Lee. "The training in Columbia's MD-PhD program opens a lot of doors to ask clinical and translational questions and those are skills that a lot of other people don't have. Conducting biomedical scientific research provides useful information. What you find will help people in some way and you're adding to this scientific community that's trying to understand things better."

— Rose Spaziani

New devices, procedures, guidelines for clinicians

Clinical advances

Is a Genetic Cure for Sickle Cell Disease on the Horizon?

By Jeff Ballinger

Researchers studying early results from ongoing gene therapy trials at Columbia have grown optimistic about finding a safer treatment and potential cure for sickle cell disease. Researchers in the Bone Marrow Transplantation and Cell Therapy Program, led by Markus Y. Mapara, MD, PhD, are participating in multicenter trials of two kinds of gene therapies.

"These therapies may completely change our approach to taking care of patients with this disease," says Dr. Mapara, professor of medicine at CUMC.

Currently, the only potential curative option for sickle cell disease is a stem cell transplant using bone marrow or blood stem cells from related or unrelated donors. Other therapies can reduce symptoms and mortality, but they do not address the root cause of the disease.

Columbia is one of the largest centers in the nation using stem cell transplants to treat sickle cell disease, but only a small fraction of patients have a suitably matched related sibling donor. Therefore, use of unrelated or mismatched related donors is also an option, but fraught with a higher risk of treatment-related complications, especially development of graft vs. host disease. The results at Columbia using these unrelated or mismatched transplants are very encouraging, demonstrating that these types of transplants can be performed safely although they are still associated with risks.

SHUTTERSTOCK

"It would be nice to correct the sickle cell defect with a safer approach and one that is available to all patients in case a matched sibling cannot be identified," Dr. Mapara says. "Columbia is one of the few centers in the world which has access to two types of gene therapy trials for sickle cell disease."

The trial of a gene therapy developed by Bluebird Bio is farthest along. The treatment takes stem cells from the patient and inserts a new gene that produces a modified hemoglobin.

After the engineered stem cells are transplanted back into the patient, they engraft into the bone marrow and produce new red blood cells that are less likely to sickle.

This procedure has been performed on more than 20 patients, including three at Columbia, says Dr. Mapara. "The results indeed appear to be very, very good," resulting in increasing total hemoglobin levels, decreases in hemolysis, and apparent reduction of the number of painful vaso-occlusive crises.

The other trial also involves genetic modification of a patient's stem cells. This approach, devised by Vertex Pharmaceuticals, uses CRISPR gene editing to disable the gene that turns off the production of fetal hemoglobin, a natural process that typically happens shortly after birth. If the therapy is

successful, the patient's stem cells will produce more red blood cells with fetal hemoglobin, which reduces sickling caused by the patient's sickle hemoglobin.

"We know that sickle cell patients who naturally produce fetal hemoglobin have fewer painful episodes, fewer complications, and better survival, and in theory this therapy will produce similar results," says Dr. Mapara. The first patient received this therapy at a different institution, but the Columbia program has identified the next three patients to receive the therapy and is in the process of stem cell mobilization of these individuals.

These experimental gene therapies are restricted to adolescents and adults enrolled in clinical trials, Dr. Mapara says, but could be used some day on children.

Sickle cell disease is present at birth and affects approximately 100,000 Americans. An estimated three times that many children are born with the disease worldwide each year.

"These patients are sick from the day they are born," says Dr. Mapara. "Successful treatment would hopefully give these patients a normal life."

More information is available at the program website, cancer.columbia.edu/bone-marrow-stem-cell-transplantation

The Neonatal Comfort Care Program

By Susan Conova

Most babies born in hospitals go home healthy with happy parents, but for some born with life-limiting conditions, these babies may have only weeks, days, or even hours to live.

Columbia neonatologist Elvira Parravicini, MD, associate professor of pediatrics at CUMC, has transformed the way these infants are cared for, giving parents special time to enjoy motherhood and fatherhood for as long as their child lives.

Dr. Parravicini became a neonatologist because she wanted to save babies' lives. "I never imagined I would end up taking care of babies born with terminal illnesses who are destined to live very short lives," she says.

Her life changed about 10 years ago during a routine meeting with other physicians to discuss the care of expectant mothers who had just learned their children would be born with grave conditions not amenable to medical treatment. Most families facing the news that their baby will only live for a very short time choose to end the pregnancy. This meeting was unusual: Two families, each carrying a fetus with trisomy 18, wanted to deliver their babies.

If they survive the delivery, babies born with trisomy 18 can have multiple life-threatening problems, including structural heart defects, airway obstruction, and profound motor and cognitive disabilities. Only 5% to 10% of these infants reach their first birthdays.

As the physicians discussed their options, Dr. Parravicini raised her hand and suggested comfort care. "To tell the truth, I had no idea what comfort care meant at that moment, but I wanted to affirm that there was a way to take care of them," Dr. Parravicini wrote in a 2014 article describing her intuition for what came to be an innovative treatment for these fragile yet precious babies.

Dr. Parravicini decided to revitalize the term *comfort care*. Traditionally this term has been used to indicate a plan of care that strives to keep the baby free from pain but does not address several other basic needs of a baby, such as bonding, warmth, hunger, and thirst. "With comfort care, taking care of these babies is sometimes more complicated and time-consuming than with other infants," Dr. Parravicini says, "and can even include surgery to improve the baby's quality of life. Whether a baby has a short life or a long one, he/she only needs love and comfort, so we always ask ourselves, 'How can we help the baby be comfortable?'"

The baby's time with parents and other family members is prioritized, and babies are placed in postpartum private rooms with their mothers, not in the hectic NICU, to give parents space and time to hold, feed, and bond with their children.

As word spread about Dr. Parravicini's program, more families chose to deliver their terminally ill babies at Columbia. Over time, with the support of philanthropic donations, Dr. Parravicini built a dedicated team consisting of a nurse coordinator, a bilingual social worker, and a program manager. Assisting the core team are a high-risk obstetrician, labor and delivery room nurse, speech pathologist, lactation consultant, child life specialist, psychologist, and chaplain.

The Neonatal Comfort Care Program helps families navigate the practical and emotional challenges of caring for a baby with a life-limiting condition from diagnosis through delivery and beyond, including short- and long-term bereavement support.

The Neonatal Comfort Care Program now helps more than 100 families each year. Dr. Parravicini and her team are also committed to education by teaching professionals at Columbia and in other institutions in the United States and internationally. They hope their specialized approach will become the standard of care for these fragile babies around the world.

"We use all of our medical knowledge and humanity to care for these babies so that they and their parents can experience the beauty of love and welcoming," says Dr. Parravicini.

For more information, visit the Neonatal Comfort Care Program website at neonatalcomfortcare.com.

The Survivors Left Behind

JÖRG MEYER

Jennifer Ashton's Book Discusses Loss Following a Suicide in Her Family

By Christine Yu

One day in June 2018, Jennifer Ashton'00 had filmed a segment for "Good Morning America" as chief medical correspondent for ABC News and completed six hours of appointments in her medical office when she learned about Kate Spade's suicide. Later while boarding a flight, she received a request from a senior producer of "Good Morning America": Would she be willing to talk about Kate Spade's suicide on the next day's edition?

News of Ms. Spade's death by suicide had plunged her into a familiar, icy-cold numbness. Typically, Dr. Ashton is not one to shy away from discussing difficult or intimate subjects. The board-certified obstetrician-gynecologist has discussed everything from maternal mortality to menopause to mass shootings on air. However, she was caught off guard by the producer's request. This topic? It felt unthinkable to discuss, let alone publicly in front of millions of TV viewers.

Just over a year earlier, Dr. Ashton and her two teenage children, Alex and Chloe, suffered a shocking and devastating loss. Her ex-husband, thoracic surgeon Robert C. Ashton Jr., MD, died by suicide at the age of 52, 18 days after his divorce from Dr. Ashton was finalized. Dr. Ashton was blindsided and blamed herself. Her ex-husband did not display any of the classic signs of depression or outward symptoms of other mental health issues that she learned about in medical school. She had seen him three days before his death at their daughter Chloe's hockey game. They took family photos and had dinner together. Everything seemed normal. How could she miss this?

Dr. Ashton told her producer that she would need to check with her kids first to get their okay. "I was secretly hoping that they would say, 'Please don't do it,'" she says. "Instead, they said, 'You have to talk about this. You have to use your voice and your platform because so many people are suffering and going through what we're going through.'"

She agreed to go on camera on one condition: Dr. Ashton would not speak in her professional capacity as a doctor. She would speak as someone whose life has been affected by suicide. This wasn't just another news story for her. She wanted to begin to break down the dark stigma that surrounds suicide and the

survivors who are left with anger, guilt, blame, and a million what-ifs to sort through.

Dr. Ashton went on the air the next day and spoke about her family's experience of losing a loved one and coping with and surviving suicide. Initially, she was worried that the public would judge her. Instead she was blown away by the response she received. "I got tweets, texts, emails, social media mentions, Instagram messages—all of people saying, 'Finally, someone is speaking for what we're going through.' I was just completely shocked by that," she says.

JÖRG MEYER

It wasn't until then that Dr. Ashton realized that sharing her family's story could offer solace and community for the many others who have been left behind by a similar unthinkable loss. After all, the stories of other survivors of suicide loss provided tremendous comfort for her and her family as they navigated the grieving and healing process.

Dr. Ashton wanted to continue the dialogue that started that morning on "Good Morning America" about the role conversation and community can play in recovering from the death of a loved one by suicide and the work needed to de-stigmatize mental illness. In May 2019, her book—"Life After Suicide: Finding Courage, Comfort and Community After Unthinkable Loss"—was released, which shares her family's personal experience as well as stories from other families and mental health experts.

A Ripple Effect

The CDC calls suicide the 10th leading cause of death across all age groups in the United States, and among health care professionals—physicians, dentists, nurses, and other allied health professionals—the suicide rate is higher on average. The suicide rate among doctors is more than double that of the general population, according to a review of 10 years of literature presented at the American Psychiatry Association annual meeting in May 2018. Between 300 and 400 physicians die by suicide each year, a rate of 28 to 40 per 100,000.

Experts believe the high stress environment and intense care-giving demands, which can lead to physical and emotional fatigue as well as burnout, may contribute to these higher rates. "Many go into this field to be healers and caregivers. Sometimes, even with their best efforts, they can't necessarily save somebody. That can wear on you over time," says Jane Bogart, EdD, director of the Center for Student Wellness at the Columbia University Irving Medical Center. Plus, the demanding profession often requires long hours and sacrifice, sometimes of a person's own well-being. "Neglect of well-being can lead to exhaustion, burnout, and compassion fatigue, and that neglect can prevent physicians from taking the time they need to address these issues and to seek support for mental health concerns."

But many physicians are reluctant to ask for help. A survey of American surgeons revealed that one in 16 had experienced suicidal ideation in the previous 12 months, but only 26 percent sought psychiatric assistance. The stigma associated with mental illness may discourage doctors from asking for help, and some may fear that a mental health diagnosis could jeopardize their medical license or cause issues with their insurance.

National awareness of the prevalence of suicidality—suicide ideation, suicide plans and attempts, and completed suicide—has increased, but the stigma remains that makes it difficult for those suffering from mental health issues to get help. It also can leave survivors of suicide feeling isolated, which can compound the intense feelings of grief.

Grieving any death is hard, but the loss left in suicide's wake is like no other. It's a different kind of death and grief, says Dr. Ashton. It's a complex and traumatic process that can leave suicide loss survivors with mixed emotions, feelings of guilt and anger, and an acute need to find a reason for why it happened.

As a doctor, Dr. Ashton was embarrassed that she did not know a lot about suicide. She was unprepared for the physical and emotional trauma. She felt like her family joined a secret society. The shame her family felt combined with the silencing effect of the stigma of mental illness left them unable to share their stories and grief. Dr. Ashton's instincts told her to work through her complex emotions in private and away from the public eye. "I felt like there was a scarlet letter on my chest," she says.

However, the impact of a death by suicide affects more than just the person's immediate circle of family and friends. A 2018 University of Kentucky study estimated that 135 people are exposed to a single suicide; that's 6 million people a year. As the rate of suicide increases, more and more people will feel the impact of these sudden losses.

Yet, the ripple effect can lead to a positive effect too. "As people talk about their experiences, they can sometimes do a lot to reduce stigma. It can be eye opening and also a relief that other people have shared a similar experience," says Dr. Bogart. For example, in the immediate aftermath of her ex-husband's death, Dr. Ashton sat in her living room with three friends who have each struggled through a loved one's suicide. In her book she writes, "I didn't have to explain anything to them, or defend, or justify, or atone, or edit myself. They'd been where I was. They knew. And they'd survived it. I'd survive it too. I had to, for my children. I just couldn't imagine how."

Grieving any death is hard, but the loss left in suicide's wake is like no other. It's a different kind of death and grief.

Post-Traumatic Growth

While sudden and unexpected events like the death of a loved one by suicide can trigger post-traumatic stress, Dr. Ashton also experienced post-traumatic growth, a term she learned from her family's therapist, Sue Simring, DSW, who has taught at the Columbia School of Social Work. Dr. Simring introduced the term to Dr. Ashton to describe the deeper understanding of self that can follow tragedy.

"I had gotten through most of my adult life as a real quintessential type A overachiever. I was accustomed to meeting goals, having successes, and avoiding failure," she says. She majored in art history and graduated from Columbia College in 1991. After completing her pre-med coursework through the Columbia postbac pre-med program, she enrolled at VP&S in 1996, where she was elected class president all four years of medical school. While completing her rigorous course load, she gave birth to both of her children. In 2016, she received her master's degree in nutrition from Columbia's Institute of Human Nutrition.

"When Rob killed himself out of the blue, with no signs that we learn about in medical school, not only was I in shock and devastated for my family's loss, but, for me, I had to come to terms head-on with what I perceived as flaws, weakness, and failure—all the things that I had tried to avoid my whole life," she says. Dr. Ashton felt that speaking about her imperfect life and how vulnerable she felt after her ex-husband's death by suicide would challenge the very essence of who she believed she was.

Dr. Ashton has been open about the vital role therapy has played in her family's healing. Dr. Ashton, Alex, and Chloe were gathered in Dr. Simring's office less than 24 hours after Dr. Rob Ashton's death. "The little bit of my brain that was functioning normally knew that this was a psychological emergency, no different than a medical emergency. I wasn't about to wing it with myself or my children," she says. Through therapy, she learned to set aside her perfectionist's myth and her aversion to vulnerability and emerged a changed person. She describes feeling like a plate shattered into a million pieces that has been put back together, with all the glue and broken seams visible on the surface. Still, she was intact.

The experience recast Dr. Ashton's relationship with her patients too. "Ironically, I feel like that's part of what makes me a good doctor and that's part of what makes my patients feel comfortable. When they feel weak, I'm always strong for them," she says. "Going through this tragedy and trauma, they knew what happened to me and my family. They saw me when I was weak and vulnerable. It has opened up a level

'I Realized I Could Do This'

Jennifer Ashton's book, "Life After Suicide," explores the multiple phases of her life after the death of Robert Ashton, MD, the man who had been her husband for 21 years. The excerpt below details her return to work.

By Jennifer Ashton

On March 22, just under six weeks since Rob's suicide, I walked into the "Good Morning America" studios. If people thought I looked haggard and imperfect, oh, well. I did, and I was. If they couldn't get past that scarlet letter on my chest, oh, well. I wasn't there to be "that woman whose husband killed himself." I was there to be Dr. Jennifer Ashton, at that time Senior Medical Contributor, and soon to be Chief Medical Correspondent, for the network and for GMA, to discuss the cancer risk of breast implants. And if I got emotional and broke down during my segment, oh, well. I'd try my best not to, but there's only so much you can control on live TV.

I spent time with Robin Roberts in her dressing room before we went on the air together, and I said yes to her asking if she could say a few personal words to me at the end of our segment. She and I go back more than five years. I trust her, I admire her, and I respect her more than I have words to describe. There's no one I would rather have had by my side that day. I'd watched in awe as she publicly battled her own life-threatening health issues and wondered at the time where she got the strength. Now I was wondering where I'd find the energy and the fire to lift myself out of my own despair; but there sat Robin, my inspiration for on-air courage and grace under duress, and her presence bolstered me.

Cameras rolled. Robin and I talked about the possible link between silicone breast implants and a rare blood cancer.

Then, as the segment ended, Robin said, on the air, "You know, Jen, we're so glad that you're back, and our thoughts are with you and your children."

At that moment I knew that, thanks to all these amazing people around me, and nine years of on-camera muscle memory, I was going to be okay. Choking back my tears, I realized I could do this.

of understanding and compassion for both of us that didn't exist before." As Dr. Ashton opened up to her patients about some of her struggles, her patients were able to relate to her and they, in turn, shared more with her, ultimately allowing Dr. Ashton to better address their health concerns.

Life After Suicide

When Dr. Ashton was deciding whether to speak on "Good Morning America" that day in 2018, her children helped her realize that silence was not an option. After all, during their grieving process, she met and heard from people who shared with her and her family their experiences of recovering from the trauma of suicide. She realized that tragedy could be a communal experience. As she writes in her book, "If I kept on hiding and stayed silent, wouldn't I essentially be turning my back on a chance to help some of those people and participating in, maybe even condoning, the same stigma that Alex and Chloe and I found so offensive and unfair?"

"Talking about mental health or suicidality and destigmatizing those topics as much as possible is something that needs constant chipping away at, and there's been tremendous progress," says Dr. Bogart. "For Dr. Ashton to come forward is impactful because she's a very visible person. I remember watching her on TV around the time Kate Spade and Anthony Bourdain died by suicide and it brought a lot of recognition to the issue."

Dr. Ashton's book, "Life After Suicide," is part memoir and part researched guide. Dr. Ashton hopes it will trigger a much-needed discussion about mental health and bring some comfort to those grieving in silence, who may feel alone in the aftermath of a loved one's suicide, and who are struggling to make sense of their loss. In addition to her personal account, Dr. Ashton includes the latest insights from researchers and health professionals to help normalize the process of recovery. "The book is really to show people that they can live through the most horrific loss and tragedy" and experience post-traumatic growth, she says. "I also want to show people that it's okay to try to find happiness and peace and healing after this. And it doesn't mean that you're not still missing their loved one."

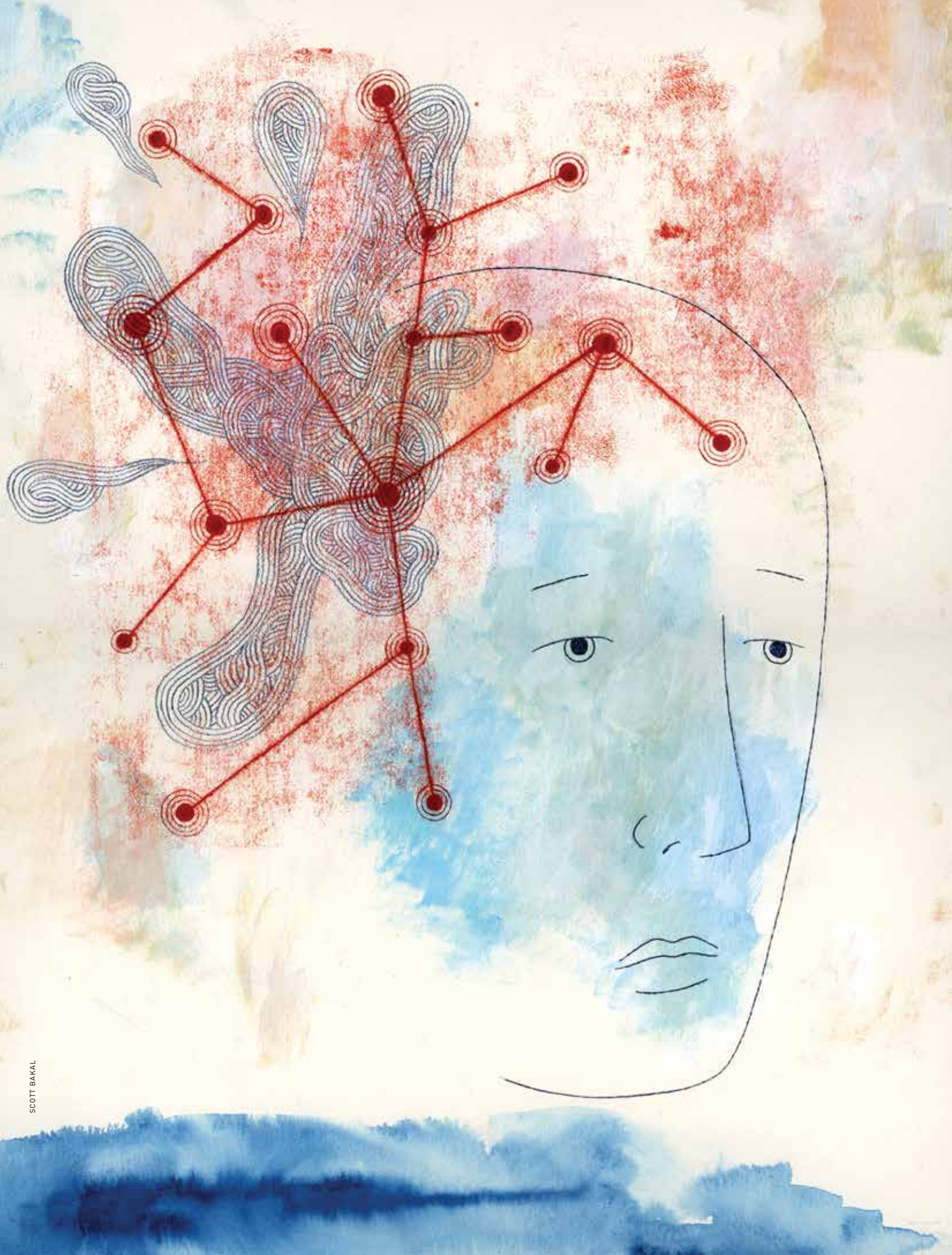
In the book, Dr. Ashton also shares stories from others who have been affected by suicide, including Melissa Rivers, who lost her father to suicide when she was roughly the same age as Dr. Ashton's children. "She's obviously funny like her mother but it was the first time she really opened up extensively about how her life has been since her dad's suicide," says Dr. Ashton. These stories provided Dr. Ashton with a roadmap for navigating the challenges she and her family faced and preparing for those they would encounter in the future and she hopes it can be a similar guide for readers. Connecting with other families helped her reframe her grief and find a path forward.

Dr. Ashton also launched a podcast to continue to explore the aftermath of suicide and offer insight on how to thrive. She interviews suicide loss survivors such as Ms. Rivers and Talinda Bennington, the wife of Chester Bennington, the former lead singer of Linkin Park, plus mental health experts and others who have healed from traumatic experiences, such as Robin Roberts and Sheryl Sandberg.

Mostly, Dr. Ashton hopes to shed a greater spotlight on the growing epidemic of suicide in the United States and the millions of people left behind each year to grieve and cope with devastating loss. She also continues to raise awareness of the need to speak loudly about mental health, not just in hushed tones.

"We have to safeguard our mental health no differently than we do our cardiovascular health," she says. ❖

Dr. Ashton realized that sharing her family's story could offer solace and community for the many others who have been left behind by a similar unthinkable loss.



SCOTT BAKAL

STUDYING SUICIDE:

Brain Imaging, Neurochemistry, Molecular Genetics Offer Insight

Other Research Examines the Effect—and Limitations—of Ketamine

The questions scientists ask have shaped the unique suicide research being done at Columbia: How do the brains of suicide decedents differ from other brains? What is the link between inflammation and stress response? Is ketamine an answer to treating depression in suicidal patients?

Understanding and preventing suicide are two paths that Columbia physicians and scientists pursue in a multipronged effort to respond to the growing problem of suicide. Other investigators devote their careers to trying to determine why suicide is considered an option for so many depressed and despairing individuals.

A recent success in research that has been translated to patient care is the finding that ketamine quickly reduces suicidal ideation in depressed patients. Because the drug, known as a club drug, can be abused and has negative side effects for long-term use, researchers are studying the drug's mechanism of action in hopes of identifying a safer but equally fast-acting alternative.

In one study, leading suicide researcher J. John Mann, MD, and colleagues administered the drug intravenously to depressed patients while they were undergoing brain imaging. "They basically went into the scanner depressed and most came out a lot more cheerful, which is a pretty amazing thing."

While the mechanisms underlying ketamine's antidepressant and antisuicidal effects are not yet known, brain imaging results indicate that glutamate, the brain's major excitatory neurotransmitter, appears to play a role.

"The reason this kind of research is exciting is that if the antidepressant and antisuicidal mechanism of action of ketamine can be figured out, it could open a door to a new generation of antidepressant medicines that potentially could help people who don't benefit from current treatments, that could potentially work faster than current antidepressants which can take a month or more to take effect, whereas ketamine works within hours," says Michael F. Grunebaum, MD, who is conducting clinical research on ketamine for depression and suicidal ideation.

Ketamine has several side effects that make it a poor candidate for long-term treatment of depression: dissociative symptoms, interstitial cystitis, and possible brain damage. "It would be a huge benefit to have good medical options for reducing suicidal thoughts quickly and safely and that perhaps could be administered in the emergency room to acutely suicidal patients," says Dr. Grunebaum.

By Anne Harding

"If you have the potential to use a medication that reduces suicidal thoughts in a few hours that could potentially reduce length of stay in the overcrowded emergency room and avoid the need for costly inpatient hospitalizations, that would be wonderful."

FINDING A WAY TO USE PERSONALIZED MEDICINE TO PREVENT SUICIDE

Dr. Mann uses functional brain imaging, neurochemistry, and molecular genetics to investigate the causes of depression and suicide. His research, and most studies in the field, are based on the stress-diathesis model of suicidal behavior. This model proposes that genetic and nongenetic or epigenetic factors mold the brain, cognition, and stress responsivity to create a predisposition to suicidal behavior. Certain neurochemicals, such as serotonin and norepinephrine, and dysregulation within the hypothalamic pituitary adrenal axis make some individuals especially vulnerable to stress. Early-life adversity, such as physical or sexual abuse, can change the structure and chemistry of the brain through epigenetic mechanisms that are chemical modifications of the genome intended to improve adaptation to the environment.

RESOURCES FOR STUDENTS

On the path to becoming a doctor, medical students may grapple with any number of challenges, from imposter phenomenon to homesickness to anxiety and depression.

"Medical students are embarking on a career that we hope they have for a long time," says Jane Bogart, EdD, director of the Center for Student Wellness, which provides resources to help students cope with their challenges. "This longevity depends on an ability to understand their challenges and what they need to maintain good emotional health. Being able to recognize how and when to seek help is a skill. Our goal is to develop this skill through a web of support and caring."

Jane Bogart

The Student Health Service is comprised of medical services; mental health services staffed by psychologists, social workers, and psychiatrists; and the Center for Student Wellness, which includes the AIMS Program (Addiction Information and Management Strategies). The services are integrated for seamless operations and in 2019 were physically united when they moved into a shared space at 100 Haven Ave.

Central to the Student Health Service's effort is fostering a campus community of faculty and staff attuned to the signs of students in distress and how to help. All Columbia public safety officers on the medical center campus and staff in student affairs and housing offices receive training. Students have a number of resources available for support: emergency contact with an on-call clinician 24/7 in the event of a crisis, online scheduling for mental health services appointments, availability of wellness appointments through the Center for Student Wellness and AIMS for strategic conversations, and several groups through mental health services, including groups for those who identify as first-generation students, women of color, LGBTQIA+, those with social anxiety, or students who have experienced the loss of a loved one.

"A sense of belonging is important for maintaining well-being and we offer students opportunities to find this support through multiple entry points," says Dr. Bogart.

The Student Health Service is developing a new interprofessional initiative, the Student Well-Being Collective. "The collective will work on systems, policies, and processes for enhancing mental health and well-being on campus," says Dr. Bogart. The Student Health Service also is working in partnership with the Jed Foundation, a nonprofit organization dedicated to protecting emotional health and preventing suicide in American teens and young adults, as a member of the Jed Campus Program.

Medical students learn about resources available to them during orientation and also during a session called "On Becoming a Doctor," presented by Claire Haiman, PsyD, director of mental health services, and Michael Devlin, MD, professor of psychiatry at CUMC.

"We have a lot of experience with the MD curriculum and where the stressors may be," says Dr. Bogart. She and Dr. Haiman speak about self-care at the beginning of the psychiatric medicine course taken by students in their first year. During Ready 4 Residency for students in their fourth year, Dr. Bogart and Dr. Devlin teach a session on using emotional intelligence skills during residency training.

In addition, for the past three years Dr. Bogart and a medical student have co-taught the narrative medicine elective, "Making Meaning: Using Emotions to Foster Relationships Essential to the Practice of Medicine." The elective grew out of the scholarly project by Dylan Marshall'18, now a resident in the Department of Medicine. Dr. Marshall's scholarly project, funded by a Steve Miller Fellowship in Medical Education, was titled "Emotional Intelligence: Fostering Relationships Essential to Making the Practice of Medicine Sustainably Meaningful, Thus Preventing Medical Student Burnout."

—Rose Spaziani

J. John Mann

Elizabeth Sublette

PORTRAITS BY JÖRG MEYER

An internal stressor such as a psychiatric illness and an external stressor such as an adverse life event can trigger suicidal behavior in such vulnerable individuals. "You rarely see a suicide in the absence of a psychiatric illness, and most of the time when people die the illness is not being treated," says Dr. Mann. Research, prevention, and treatment should focus on why suicidal patients are not being treated so underlying problems can be addressed.

Given the role of early life experience in molding brain development, several complementary studies are underway, including animal experiments, which replicate the effects of early-life adversity, and MRI and PET scans on the brains of people who have died by suicide. Dr. Mann's initial studies, done with Victoria Arango, PhD, and Mark Underwood, PhD, used postmortem brain tissue from suicide decedents to evaluate the biology of suicidal behavior. Now research includes living patients who have a history of suicidal thoughts and behaviors. Data yielded by each study are used to create computational models of neural circuits, regulation of emotion, stress responses, and suicidal behavior that researchers hope will someday be able to predict risk.

"We've been doing this over a number of years, and the measurements have evolved," says Dr. Mann.

Understanding which depressed individuals will become suicidal is crucial. "The health care system cannot focus equally on every patient with a psychiatric disorder."

"Patients go through an incredibly complex and advanced set of measures. They get multimodal brain imaging with three major modes of imaging, and then they get tested in the lab for stress responsiveness and how they handle these stressors, and then we use a method called ecological momentary assessment to see if they're responding to social interactions and adversity in the same way that they seem to respond in the lab."

Through this research, funded by a grant for postmortem neurochemical studies of suicide and entering its 16th year with support by a major NIMH center grant, Dr. Mann and his colleagues have identified four behavioral indicators that characterize depressed suicidal individuals and have mapped the indicators to specific areas of the brain.

Mood regulation: Depressed suicidal people tend to be pessimistic. "When they're depressed they feel more profoundly depressed, desperate, hopeless, and pessi-

mistic about the future than other patients," says Dr. Mann. "They are more likely to devalue the probability of getting better."

Decision-making: Depressed suicidal individuals have a different approach to making decisions. Suicide, which will immediately relieve their psychic pain, looks like a better choice than trying an antidepressant, which can take several weeks to work and might not even help. "Everybody's got a sort of sweet spot where they switch between the delayed and the immediate reward. These people tend to switch to the immediate reward earlier," Dr. Mann says. "This decision-making style also has its own neural circuitry."

Social perceptions: Depressed suicidal patients often seem reluctant to ask for help. "The reason they're reluctant is important and discoverable," says Dr. Mann. "They tend to be hypersensitive to critical social cues and less sensitive to positive social cues, so they perceive the world to be more critical and less helpful than other people do. We can also see this in their brain scans. We know which bits of the brain are involved in social cognition, and the response to positive signals is weaker and the response to negative signals is stronger. So it's not just what they tell us. We can see this in the brain."

Learning and problem-solving: When faced with challenges, depressed suicidal individuals are not good at coming up with solutions. They are less able to formulate new approaches to problems and tend to respond more rigidly. They feel like they've run out of options and feel stuck.

While brain modifications in these four areas likely represent a combination of genetic and epigenetic changes with the latter seeking to improve an individual's resilience and survival, Dr. Mann notes, "sometimes it backfires, and when you grow up some of these modifications are really not helpful, they are potentially harmful." By the time a person has their first episode of depression, he adds, "they probably already have the predisposition wired in."

The good news, Dr. Mann notes, is that each of these risk factors is potentially modifiable. "The mood part is treatable, the decision-making is also educable. You can change the options by getting faster and better antidepressants, for example, or you can change the way the person approaches decision-making. With social perceptions, biofeedback can change people's response to social signaling, and problem-solving is also something that one can address. People can be trained to tackle problems in a more systematic and constructive fashion, which may give them more options and choices."

He adds that identifying the different components may help clinicians design a treatment strategy that is more individually relevant, "a kind of a personalized medicine approach to suicide prevention."

Understanding which depressed individuals will become suicidal is crucial, Dr. Mann adds. "The health care system cannot focus equally on every patient with a psychiatric disorder. The clinician needs some help in figuring out 'This is a high-risk patient, this is a low-risk patient.' We need these kinds of multipronged tools for better classifying patients in terms of risk. It's fundamental to prevention."

ZERO SUICIDE INITIATIVE

Losing suicidal patients to follow-up is a significant problem for unintegrated health care systems, says Barbara Stanley, PhD, who has developed clinical tools to help. She collaborated with Gregory K. Brown, PhD, of the University of Pennsylvania to create the Safety Planning Intervention, an evidence-based tool that helps clinicians and suicidal patients develop a six-step plan for staying safe after hospitalization or ED visits.

It is part of the Zero Suicide framework, an aspirational model aimed at reducing suicide in health care systems, that Dr. Stanley and Columbia colleagues are implementing as a quality improvement initiative using evidence-based tools to identify and keep at-risk patients from falling through gaps in the health care system. Of individuals who died by suicide, 40% saw a doctor in the preceding month. Many of the doctors consulted were primary care physicians, sought out because of medical issues: poor appetite, lack of energy, inability to concentrate. Because depression often masquerades as another ailment, doctors who administer tests for cancer or anemia often miss the depression.

PORTRAITS BY JÖRG MEYER

Who's Who

- **Victoria Arango, PhD,** former professor of clinical neurobiology (in psychiatry) and now chief of the central-peripheral interactions pathophysiology program in the National Institute of Mental Health Division of Translational Research
- **Michael F. Grunebaum, MD,** special lecturer in psychiatry
- **J. John Mann, MD,** the Paul Janssen Professor of Translational Neuroscience (in Psychiatry and in Radiology)
- **Barbara Stanley, PhD,** professor of medical psychology (in psychiatry) at CUMC
- **M. Elizabeth Sublette, MD, PhD,** associate professor of clinical psychiatry
- **Mark Underwood, PhD,** professor of clinical neurobiology (in psychiatry)

Mark Underwood

Michael F. Grunebaum

The Zero Suicide approach suggests suicide can be reduced by focusing attention on individuals who are patients in health care systems and by implementing simple strategies to identify, intervene, and refer patients at risk. In collaboration with the New York State Office of Mental Health, Dr. Stanley is leading an NIMH study to test the efficacy of the Zero Suicide model training in 165 behavioral health clinics across New York state. "We have provided clinicians in the community a series of strategies, kind of a template or schematic, for suicidal patients who come to their clinics," Dr. Stanley explains. "Integrating services is a tough challenge, but we need to work toward reducing suicide among our patients to zero. These patients are right in front of us and we have the opportunity to intervene. We have to attack the problem from all these different perspectives at this point, because whatever we're doing is clearly not enough."

STUDYING RESPONSES TO STRESS

Dr. Stanley also studies suicidal individuals in the lab, investigating the relationship between stress responsiveness and suicide risk, and is collaborating with M. Elizabeth Sublette, MD, PhD, to identify associations among stress, suicidal behavior, and inflammation.

"It would be a huge benefit to have good medical options for reducing suicidal thoughts quickly and safely and that perhaps could be administered in the emergency room to acutely suicidal patients."

"While patients are doing a stress test, we measure markers of inflammation to see if there is a correlation between inflammatory markers and stress response and if that pattern is different in suicidal people versus nonsuicidal people," Dr. Stanley explains.

With a grant from the American Foundation for Suicide Prevention, Dr. Sublette also has investigated the association between three potentially modifiable factors linked to suicide risk in depressed patients: plasma proinflammatory cytokines, plasma omega-3 polyunsaturated fatty acids, and aggression. She previously found associations between low levels of omega-3 fatty acids and the risk of a later suicide attempt and has found correlations between levels of omega-3s in the blood and patterns of glucose uptake in the brain.

If inflammation does turn out to play a role in suicide vulnerability in depressed patients, Columbia researchers will have discovered yet another potentially modifiable suicide risk factor. ❖

PREVENTING SUICIDE:

GENETIC STUDIES, SCREENINGS, APPS

RESEARCHERS EXPLORE NEW WAYS TO IDENTIFY INDIVIDUALS AT RISK

BY JOSEPH NEIGHBOR

SCOTT BAKAL

No one can explain why the suicide rate in the United States has gone up nearly every year of this century—despite decreases worldwide over the same period—but experts agree that suicide is preventable.

Suicide attempts in the United States are also increasing. In contrast to these two statistics—increases in suicides and suicide attempts—more people than ever are seeking help, effective therapies exist, and prescriptions for antidepressants and mood stabilizers are at all-time high numbers. None of this has stanched the tide.

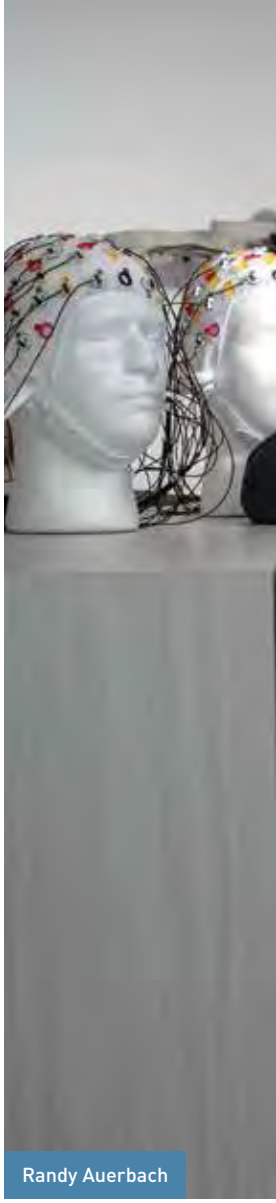
"All of us have lost people in our lives," says Randy Auerbach, PhD, an expert in adolescent depression and suicide who also co-directs the World Health Organization World Mental Health International College Student Initiative. "But it's different when you lose someone by their own hand. You feel for the family. You also feel for the individual, how much this person must have been suffering, how painful each day of their life must have been where they felt this was their best option that day. It's something we feel shapes the type of work we do."

He also has received federal funding to lead the NIMH study called Mobile Assessment for the Prediction of Suicide (MAPS). The study uses smartphones to collect data from 200 high-risk adolescents, most of whom have a history of suicidal thoughts or actions, to identify patterns in behavior known to have some connection to suicide.

The Silvio O. Conte Center for Suicide Prevention at Columbia and the New York State Psychiatric Institute also focuses on prevention efforts by learning about the fundamental causes of suicide. Funded by the NIMH, the center brings together clinical, laboratory, brain imaging, and big data analytic capabilities to probe how genes and childhood adversity—nature and nurture—combine to create a predisposition to suicidal behavior.

The center is led by J. John Mann, MD, a pioneering suicide researcher who received the 2019 Lifetime Achievement Award from the American Foundation for Suicide Prevention. One of the center's goals is development of a model to predict suicide risk, recognizing that not all people with depression die by suicide.

One avenue of research is the study of the heritable component to suicide. The Conte Center is part of a worldwide consortium of investigators trying to identify specific genes that may contribute to suicide risk. "It will take time, but we will get there," says Dr. Mann. "When you combine that with clinical information about people who have a psychiatric illness, we should be able to narrow it down to the subgroup most at risk for suicide. They are the ones who really need protection and focus in terms of treatment and prevention."



Randy Auerbach

Teaching Future MDs About Suicide

Learning about suicide risk and prevention is part of the coursework at VP&S from the first semester's "Foundations of Clinical Medicine" course.

By their second semester, students take a psychiatric medicine course taught by Janis Cutler, MD, professor of clinical psychiatry. In one session of the course, standardized patients act out symptoms of depression and students screen them for suicidal ideation. Their small group preceptors guide them in techniques for talking to patients about suicide. "Students struggle at first with asking direct questions," says Dr. Cutler. "They worry about being impolite or giving a patient harmful ideas. Asking the right questions is important in getting a patient to express suicidal thoughts."

In time for major clinical year, students learn to assess patients for suicidality when giving bad news to patients. All are required to complete a five-week psychiatry clerkship in hospital and clinic settings, where they rotate in a psychiatric emergency room and interview at least one patient suffering from suicidal ideation. At the end of medical school, in the Ready 4 Residency course, students participate in a session that provides guidance on when to hospitalize suicidal patients.

Janis Cutler

"Suicide is a global public health crisis," says Jonathan Amiel, MD, associate professor of psychiatry and senior associate dean for curricular affairs at VP&S. "Our medical school is committed to ensuring graduates are prepared to do their part in helping to prevent suicide by learning how to identify at-risk patients in medical settings and helping those who have attempted or are at risk for suicide to access quality care."

— Rose Spaziani

Barbara Stanley

PORTRAITS JÖRG MEYER

But even identifying someone at risk of suicide doesn't identify everyone who is in jeopardy. "We understand suicide attempters are more depressed and more impulsive," says noted suicide researcher Barbara Stanley, PhD, "but we haven't been able to walk up really close to the suicide event itself. It's like trying to predict who will have a myocardial infarction the week or days before it occurs. We are not very good at identifying near-term risk."

Mobile Assessment for the Prediction of Suicide

That's where the MAPS project may help. Tone of voice. Language use. Quality of sleep. How often one reaches out to friends or leaves the house. The contours of a smile in a picture. Many of these behavioral markers are known to be associated with depression and suicide. Dr. Auerbach hopes to use the data collected from smartphones to create computational models that capture how suicide risk is expressed in real time. The NIMH has just awarded the Conte Center additional funding to test this approach in the patients being studied and link the mobile app findings to the brain imaging and stress lab measurements used by the Conte Center.

Suicide prevention experts want Tim Cook to get up in front of Apple customers one day and tell them how the iPhone is going to help prevent suicide.

"The ultimate advantage is that if we're able to utilize this assessment in real time, we'll be able to identify features that relate to transitions between suicidal thinking and behaviors," says Dr. Auerbach. "We can then start to think in creative ways about how to deliver 'just-in-time' interventions—not necessarily where somebody is ultimately going to make a decision to end their life but ideally when they start wading into a territory where they're at risk."

Self-reporting is a limitation of many mental health studies. Subjects aren't always transparent. They can be mistaken. Even the most mindful might not be able to tell when they are in a precarious state. MAPS sidesteps many of these obstacles by requiring minimal user interaction. The app runs in the background. Subjects have periodic check-ins, to see how they might be feeling, but the true value is in the data they provide by going about their lives, material from which predictive algorithms can be made.

Dr. Auerbach aims for findings that are reliable and replicable, but to what extent will insights gleaned from teenage subjects be applicable to other demographics? "The potential is enormous," says Dr. Mann, who also works on the project. "It's unproven technology, but it has a lot of common sense opportunity. By combining all the other things we're doing with our patients, we're enriching the information we are collecting. One day we want Tim Cook to get up there in front of Apple customers and tell them not how the iPhone is going to be good for their cardiovascular health, but how it's going to help prevent suicide."

More Traditional Approaches

As high tech as MAPS is, Columbia also has been at the forefront of suicide prevention efforts with the Columbia-Suicide Severity Rating Scale (C-SSRS), a simple but proven effective questionnaire to assess suicidality. Based on decades of research, it has saved lives since it was introduced in 2007. The Columbia Protocol, as it is known, is considered the gold standard in assessing suicide risk and has been adopted by schools, hospitals, jails, and military organizations in more than 45 countries.

Madelyn Gould

Research has laid the groundwork for the launching of a three-digit national hotline number—988—as recommended by the Federal Communications Commission.

"We knew that if we wanted a real change, we needed a simple common method for asking about suicidal thoughts and behaviors that everyone can use," says Kelly Posner, PhD, who leads the work. "With the C-SSRS, we are well on our way to making the language of asking about suicide accessible to everyone and suicide screening routine across all public health settings."

Dr. Stanley helped to create an intervention for use once patients have been identified as being at risk by tools like the C-SSRS. The Safety Planning

Who's Who

- Randy P. Auerbach, PhD, associate professor of psychiatry
- Madelyn Gould, PhD, the Irving Philips Professor of Epidemiology (in Psychiatry) at CUMC
- J. John Mann, MD, the Paul Janssen Professor of Translational Neuroscience (in Psychiatry and in Radiology)
- Kelly Posner, PhD, clinical professor of medical psychology (in psychiatry)
- Barbara Stanley, PhD, professor of medical psychology (in psychiatry) at CUMC

Intervention is helpful in managing the dangerous period post-discharge following hospitalization or an ED visit for a suicide attempt or because of suicidal thoughts. Dr. Stanley's research has found that a simple safety plan created with the patient, which details warning signs, coping strategies, and resources to be used if suicidal thoughts or feelings return, can give that person a sense of control in vulnerable moments. A 2018 study on suicidal patients in VA hospitals found that a safety plan, along with follow-up calls from a clinician 72 hours after discharge, cut the odds of that patient re-attempting suicide by 50% in the next six months. Twice as many sought mental health care when they were distressed if they left the hospital with the safety plan.

The Media's Role in Prevention

Another area of Columbia suicide prevention research is led by psychiatric epidemiologist Madelyn Gould, PhD, MPH. In three decades of research that has been continuously funded by the Centers for Disease Control and Prevention, the National Institute of Mental Health, and the Substance Abuse and Mental Health Services Administration, Dr. Gould has shown how and why suicide is contagious and elucidated the news media's role in promoting—or stemming—the spread of suicidal behavior.

JÖRG MEYER

She has contributed to the CDC's community response plan for suicide clusters and recommendations to optimize media reporting of suicide and has been a member of national and international workgroups that update media recommendations.

She currently leads the evaluation of the National Suicide Prevention Lifeline, the national network of telephone crisis services that has emerged as an important part of suicide prevention programs. Her findings have led to improvements in services, including an initiative to have crisis centers offer and provide clinical follow-up to suicidal hotline callers. The evaluation findings have also laid the groundwork for the launching of a three-digit national hotline number (988), as recommended by the Federal Communications Commission in August of 2019. In November, a team of senators introduced a bipartisan bill to make 988 the three-digit number to reach the National Suicide Hotline.

"The 2001 U.S. National Strategy for Suicide Prevention barely mentioned crisis hotlines," says Dr. Gould, "but the 2010 National Action Alliance for Suicide Prevention prominently referenced Lifeline and telephone crisis services as important to the national strategy. Now, media reports of suicides routinely provide a suicide hotline number."

Challenges Remain

From cutting-edge explorations of the genetic and neurochemical roots of suicide to common sense methods to identify those at risk, Columbia investigators are contributing to the body of research that could make a difference. "We have more people working on suicide prevention research than anywhere in the world," says Dr. Mann.

Among the challenges that remain: Some people who die by suicide never come into contact with the health care system at all because they are uninsured, or underinsured, or they live in remote areas.

The largest challenge, though, is stigma. Unlike HIV or cancer, suicide has not prompted massive activism or increased funding for research or treatment. People continue to suffer in silence, and when a suicide ends one person's pain, it transfers that pain to many more people who are left behind to mourn the loss. Reducing the stigma associated with suicide is on the agenda of everyone focused on suicide prevention. "Stigma is a huge barrier to treatment of all mental illnesses," says Dr. Mann. "Breaking down the barrier will help identify people who suffer in silence so we can get them the care they need and it will help patients understand that they have an illness that is not their fault and needs to be treated like any other type of illness." ❖

About Suicide in the United States*

- Suicide is the 10th leading cause of death across all age groups.
- In 2017, more than 47,000 Americans died by suicide, a 31% increase over 2001.
- One person dies by suicide every 11 minutes.
- Suicide is the second leading cause of death among people age 10 to 34.
- Suicide is the fourth leading cause of death among people age 35 to 54.
- The number of suicides in 2017 was more than double the number of murders.

* CENTERS FOR DISEASE CONTROL AND PREVENTION

National Suicide Prevention Lifeline

24/7 free and confidential support for people in distress, prevention and crisis resources for you or your loved ones, and best practices for professionals.

800-273-TALK (8255)

Alumni News & notes

By Marianne Wolff'52, Alumni Editor, and Bonita Eaton Enochs, Editor

1957

The 2019 Jacobson Innovation Award of the American College of Surgeons was presented to Henry Buchwald. This prestigious award honors pioneering

AMERICAN COLLEGE OF SURGEONS

Henry Buchwald'57, right, with ACS president Ronald Maier

living surgeons and was given to Henry in recognition of his five decades of work, particularly in the field of metabolic surgery. At the event, Henry was described as "a true surgeon-scientist who, through creativity and perseverance, has made seminal contributions to science and society."

1959

Ludwig Gutmann, professor of neurology at the University of Iowa, received the American Academy of Neurology Award for Creative Expression of Human Values in Neurology for

Ludwig Gutmann'59

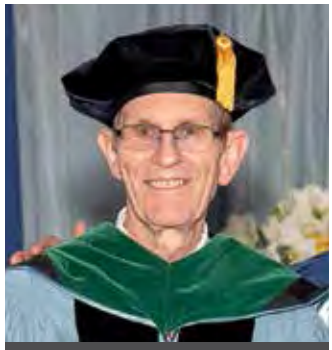
a short story published in the journal Neurology.

1963

See Alumni in Print to read about a two-volume set co-written by Paul Mosher. Paul is a psychoanalyst in private practice in Albany, New York.

1964

Walter Franck, professor emeritus of clinical medicine, received the VP&S Distinguished Service Award in Clinical Science at the 2019 graduation ceremony. The award is the highest clinical honor presented by VP&S. Walt worked for 42 years at Bassett Medical Center as a rheumatologist, physician leader, researcher, and teacher. For 28 of those years, he served as Bassett's physician-in-chief, and he also co-directed the



Walter Franck'64

Columbia-Bassett Medical Program and was a senior associate dean at Columbia.

At the 2019 alumni reunion, Story Musgrave gave a talk, "From Farm Kid to Rocket Man and Way Beyond: Excellence, Exploration, and Evolution," during the Dean's Day Program. Story is a retired NASA astronaut—the only one to fly aboard all five space shuttles—and current professor of design at the Art Center College of Design in Pasadena, California.

1965

See Alumni in Print to read about a book co-edited by Robert Lisak, the Parker Webber Chair in Neurology at Wayne State University School of Medicine. Previously, he was vice chair of neurology at the University of Pennsylvania, chair of neurology at Wayne State University, neurologist-in-chief of the Detroit Medical Center, and chief of neurology at Harper University Hospital.

1966

Ron Drusin stepped down from his role as vice dean for education at VP&S at the end of December 2019. See Page 4 for a profile of his career at Columbia.

Harold Varmus was featured speaker in September at an event for students who spent the summer conducting research through the VP&S Program for Education in Global and Population Health. Harold, the Lewis Thomas University Professor at Weill Cornell Medicine, recalled his time during medical school in an apprenticeship at a missionary hospital in India, where medical staff treated patients with leprosy, advanced tuberculosis, and other diseases infrequently observed in New York City. His experience was part of his inspiration for making a gift

Harold Varmus'66

to VP&S to establish the Varmus Global Scholars Fund to provide stipends for a few students to conduct novel global health research projects at international sites for eight weeks to one year.

1968

At the 2019 alumni reunion, Gail Williams served as the honorary chair of the Dean's Day Program.

1969

At the 2019 alumni reunion, John P. Bilezikian received the medal for Outstanding Achievements in Medical Research. John is the Dorothy L. and Daniel H. Silberberg Professor of Medicine

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Anke Nolting to Retire After Nearly 40 Years

Anke Nolting

Anke Nolting, PhD, associate dean and executive director of development and alumni relations at VP&S, retired Dec. 31, 2019, after nearly 40 years of service to the VP&S Alumni Association.

In making the announcement, Lee Goldman, EVP and dean, said, "We are enormously grateful to Anke for her dedication to our institution. Her warmth and presence have welcomed generations of students, faculty, alumni, and donors through our doors—relationships she continued over the years."

Dr. Nolting joined Columbia University in 1968 as a foreign exchange student and spent two years in the laboratory of neurologist Malcolm B. Carpenter and two years in Eric Kandel's Center for Neurobiology & Behavior. She joined the VP&S Alumni Association in 1980. Her team has nurtured generations of alumni in the medical school and actively engaged them in many programs and projects. Under Dr. Nolting's leadership, endowment of professorships increased, including five professorships funded by Clyde Wu'56. Scholarship endowment funds, such as the Kenneth A. Forde Diversity Scholarship, also increased. Her work also contributed to the establishment of key programs in genetics and nurture science, including the Judy Sulzberger'49 Human Genome Center and the Clyde Wu'56 Center for Molecular Biology. "Anke also helped to spearhead the launch of the Wu Family China Center through her strong partnership and friendship with Clyde'56 and Helen Wu and the extended Wu family," said Dr. Goldman. "These are but a few of Anke's accomplishments."

Elizabeth Williams, director of the VP&S Alumni Association, will serve as the primary point of contact for the alumni association.

and professor of pharmacology at VP&S, vice chair of the Department of Medicine for international education and research, chief emeritus of the Division of Endocrinology, and director emeritus of the Metabolic Bone Diseases Program at CUIMC. He is known worldwide for landmark research that has defined primary hyperparathyroidism. His research, now in its 35th year of continuous NIH funding, is the longest and most successful of its kind and has provided novel insights into natural history, mechanisms of bone loss, and pathogenesis that have led to international standards for diagnosis and management. He is also a pioneer in studies of hypoparathyroidism and osteoporosis. John's international work led to the establishment of the Osteoporosis Center of Armenia, a Eurasian hub, which features outreach, diagnosis, care, and research.

Charlotte Cunningham-Rundles, the David S. Gottesman Professor of Immunology at Mount Sinai School of Medicine and director of the immunodeficiency clinic at Mount Sinai Hospital, received the Virginia Kneeland Frantz'22 Distinguished Women in Medicine Award during the 2019 alumni reunion. Charlotte is also program director of allergy immunology fellowship training at Mount Sinai.

Charlotte Cunningham-Rundles'69

Anne Moore gave a talk, "Breast Cancer: 50 Years of Progress," during the Dean's Day Program at the 2019 alumni reunion. She also served as chair of the 50th anniversary class and delivered welcoming remarks on Alumni Day. Anne is the medical director of the Weill Cornell Breast Center and professor of clinical medicine at Weill Cornell.

Anne Moore'69

At the 2019 alumni reunion, James A. Reiffel, professor emeritus of medicine at VP&S, gave a talk, "Beneath the Surface Lies a Silent Killer: the High Incidence of 'Subclinical' or 'Silent' Atrial Fibrillation and its Risks," during the Alumni Day Program.

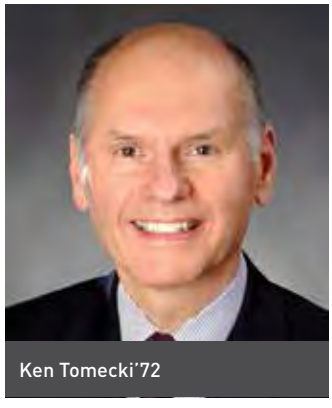
1970

Michael Parry, the Thomas J. Bradsell Chair of Infectious Diseases at Stamford Health, received a United Hospital Fund's 2019 Excellence in Health Care Award for Quality Improvement Champions. The award recognizes Michael's dedication to patient care and his leadership in hospital epidemiology and infection prevention at both the local and national level.

Donald Quest is the new assistant dean for admissions at VP&S after being interim assistant dean.

1972

Ken Tomecki has been elected president of the American Academy of Dermatology (AAD), the largest dermatology organization in the world with more than 20,000 physicians. He becomes president-elect in March 2020, at the next AAD annual meeting, then president in March 2021. Ken was a member of the AAD board for four years and AAD vice president in 2016-2017. He is vice president of the Interna-



Ken Tomecki'72

tional Society of Dermatology and just completed a term as vice president of the American Dermatological Association. He is a member of the editorial boards of the Journal of the American Academy of Dermatology and the International Journal of Dermatology. His workday destination is still the Cleveland Clinic, his home for more than three decades.

1974

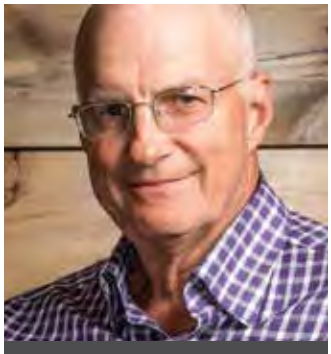
At the 2019 alumni reunion, Allan Schwartz received the award for Outstanding Achievements in Clinical Medicine. At Columbia, Allan is the Harold Ames Hatch Professor of Medicine, the Seymour Milstein Professor of Cardiology (in Medicine), and vice chair of the Department of Medicine. He also is chief of the cardiology division and physician-in-chief of the Vivian and Seymour Milstein Family Heart Center. Under his leadership, the cardiology division has attained international prominence as one of the leading centers for cardiac research, innovation, patient care, and education.

Michael M. Krinsky has practiced neurology in Connecticut since 1979. He trained in internal medicine at St. Luke's Hospital and neurology at Mount Sinai Hospital, where he was chief resident. He held teaching appointments at Mount Sinai as preceptor in the Department of Neurology and as an instructor in human medicine. He also served on the faculty at the University of Connecticut. He held several positions at the Hartford Easter Seals Rehabilitation Center, was a consultant to state agencies, and was instrumental in establishing the Evoked Potential Testing laboratories at Mount Sinai, Manchester Memorial, and Rockville General hospitals. He also established the EMG laboratory at Rockville General. He served as president of the medical staff at the Hebrew Home and Hospital in Hartford and established its neurology and movement disorders clinic. He was president of the Hartford County Medical Association, councilor of the Tolland County Medical Association, and president of the Connecticut State Medical Society.

1975

At the 2019 alumni reunion, David P. Roye received the award for meritorious service to VP&S and its alumni association. David has dedicated his professional life to improving life for children in the United States and abroad. He is chief of the pediatric orthopedic service at Morgan Stanley Children's Hospital of NYP and the St. Giles Professor of Pediatric Orthopedic Surgery at VP&S. In 2013, he presided over the official opening of the Weinberg Family Cerebral Palsy Center, dedicated to providing comprehensive care to cerebral palsy patients transitioning to adulthood.

See Alumni in Print to read about a new book by William C. Meyers. Bill is an authority on core health, and he established the Vincera Institute, which is dedicated to the prevention, diagnosis, and treatment of core injuries, as well as research and education.



William C. Meyers'75

Valerie Rusch became president of the American College of Surgeons, the world's largest surgical organization, in October.

Valerie Rusch'75

The college sets standards for surgical practice and education, representing 80,000 surgeons from all specialties. As the college's 100th president, Valerie is only the fourth woman to hold the position. She is currently vice chair for clinical research in the Department of Surgery at Memorial Sloan Kettering.

1979

The New York Academy of Medicine gave its Stephen Smith Award for Distinguished Contributions in Public Health to Mary T. Bassett. NY Academy of Medicine awards honor individuals for distinguished contributions in health policy, public health, clinical practice, and biomedical research. Mary, director of Harvard's François-Xavier Bagnoud (FXB) Center for Health and Human Rights, was recognized for her work as New York City Health Commissioner. As commissioner, she transformed public health in New York by addressing structural biases to help close persistent racial gaps in health and by starting multiple initiatives on social determinants of health, the opioid crisis, mental health, and health equity. Mary also is the FXB Professor of the Practice of Health and Human Rights at Harvard's T.H. Chan School of Public Health.

At the 2019 alumni reunion, Daniel McCrimons, clinical assistant professor at California Northstate University College of Medicine, gave a talk, "A Plea for the Preservation of all Physicians to Become Care-Giving Student Doctors: A Long and Gratifying Experience," during the Alumni Day Program.

Jerry Sebag delivered the inaugural Robert Machemer Lecture to the European Society of Ophthalmology in June. Presented at an international biennial congress representing 44 national societies, Jerry's keynote lecture addressed the unmet needs of patients suffering from vitreous eye floaters that degrade contrast sensitivity function and negatively impact quality of life.

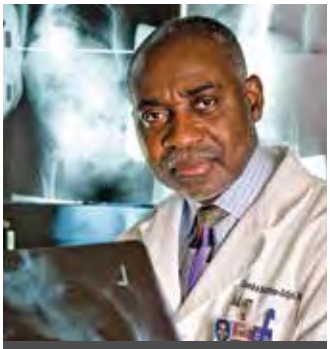
1980

Nancy Anderson has been named director of the maternal child health systems program in the Department of Midwifery at Bastyr University in Washington state. The master of arts in maternal-child health systems

Nancy Anderson'80

offers experienced midwives and other qualified maternal-child health professionals the opportunity to become influential leaders in education, research, policymaking, program management, and advocacy to improve the health of women and children. Nancy, a board-certified pediatrician with an MPH in maternal-child health from the University of Washington, spent five years working in Mozambique and 12 years working for the Department of Social and Health Services in Washington state. She taught public health at Evergreen State College and was adjunct faculty at Bastyr before joining the faculty full time in 2016.

Oheneba Boachie-Adjei received a 2019 Black Star GUBA Award for exceptional contributions to medicine. The Black Star GUBA awards celebrate the



Oheneba Boachie-Adjei'80

achievements of individuals and businesses with ties to Ghana. Oheneba returned to Ghana after a long career in the United States to be CEO, surgeon-in-chief, and medical director of the Foundation of Orthopedics and Complex Spine Orthopedic Hospital. He received a Lifetime Achievement Award from the Hospital for Special Surgery in June 2013 and in 2015 was featured on CNN's African Voices documentary as the "Ghanaian doctor transforming spine surgery in Ghana."

1985

See Alumni in Print to read about a book co-written by Brian A. Fallon. Brian is a physician and psychiatrist with an interest in anxiety and in the neuropsychiatric manifestations of infectious diseases. He is currently director of the Lyme and Tick-Borne Diseases Research Center at Columbia.

1986

Steve Auerbach retired after reaching the maximum 30 years of active duty service as medical epidemiologist with the U.S. Public Health Service, including stints with the Centers for Disease Control and Prevention in Atlanta, in Micronesia, and in his home of New York City with the regional office of the Health Resources and Services Administration. His work involved community health centers, health care for the homeless, national health services corps, health professional shortage areas, and more. He looks forward in retirement to becoming even more active on the executive board of Physicians for a National Health Program in New York City and other single-payer and health, social, and economic justice work. He lives in New York City with his wife and their two children "when they are home."

1989

Anne Armstrong-Coben is the new senior associate dean for admissions at VP&S. Read about her appointment on Page 5 of this issue.

Richard Braunstein has been appointed senior vice president/executive director of Northwell Health's ophthalmology service line and is the Arlene and Arthur Levine Professor and Chair of Ophthalmology at the Zucker

Richard Braunstein'89

James Watkins'91

School of Medicine at Hofstra/Northwell. He serves as president of the Northwell Health Eye Institute.

At the 2019 alumni reunion, Laurence Huang, chief of the HIV/AIDS Chest Clinic at Zuckerberg San Francisco General Hospital, gave a talk, "AIDS: From Washington Heights to Kampala, Uganda," during the Alumni Day Program. Laurence is also professor of medicine at UCSF.

Donald M. Thea, a Boston University professor, received the 2019 Horace Mann Award from Antioch College. The award is presented to alumni of Antioch who have had a "profound effect on the present or future human condition." Donald was recognized in particular for his research on the transmission of HIV from mothers to children, as well as for his work investigating malaria and childhood pneumonia.

At the 2019 alumni reunion, Susan Vaughan, associate professor of psychiatry at CUMC, gave a talk, "Dreaming of a Neuroscience-based Psychoanalysis: 30 Years at Columbia," during the Alumni Day Program.

1991

The U.S. Ski Team awarded James Watkins its J. Leland Sosman Award. The award was presented during the chairman's awards dinner as part of the U.S. Ski & Snowboard Congress in Park City, Utah. The nomination read in part: "Jamie has traveled with us for several years now and has been a great ambassador for our program. He often travels to the lesser known locations that have minimal medical support and is able to provide a high level of medical expertise and give our staff and athletes a high level of confidence when they are training or competing. He is also a resource for many different medical scenarios and is able to connect us with experts in a variety of specialties." Despite receiving chemotherapy for lymphoma at the time, Jamie traveled to South Korea as a doctor for the U.S. team during the 2018 Winter Olympics. He has worked with the team for eight years, beginning shortly after the Vancouver Olympics when he joined the men's speed team in Chile. Jamie writes that even though he graduated in 1991, he spent most of his time in the Class of 1989.

1991 PSY

At the 2019 alumni reunion, Lisa Mellman became an honorary alumnus. Lisa is senior associate dean for student affairs and the Samuel Rudin Professor of Psychiatry at CUMC. Lisa has received several awards for clinical excellence, teaching, and psychoanalysis and is a distinguished fellow

of the American Psychiatric Association and a past president of the American Association of Directors of Psychiatry Residency Training. She is profiled on Page 36 of this issue.

1995

Jess Ting is featured in a documentary that premiered at Lincoln Center as part of the New York Film Festival. The film goes behind the scenes at Mount Sinai, where Jess led the hospital's first genital reassignment surgery for a transgender person. Since then, Mount Sinai has established a Center for Transgender Medicine and Surgery, and Jess's team has performed more than 1,000 transgender surgeries. The documentary follows a diverse group of patients as they go through the emotional and physical journey of surgical transitioning.

1996

Kathleen van Leeuwen founded the Phoenix Children's Hospital Fetal Care Center, Arizona's only program offering advanced fetal diagnosis and newborn medical and surgical intervention. She also is director of the reproductive anomalies and differences of sex development clinic at Phoenix Children's.

Kathleen van Leeuwen'96

Carlos Jose Rodriguez has joined Montefiore Health System and the Albert Einstein College of Medicine as vice chair for academic affairs, director of cardiovascular research, and director of cardiovascular epidemiology. As a national leader in the study of cardiovascular risk factors for minorities, Carlos has focused his research on heart disease, heart failure, and other cardiovascular health disparities.

Carlos Jose Rodriguez'96

He also earned an MPH degree from Columbia.

1997

Delphine Taylor was appointed co-chair of the subcommittee that oversees the fundamentals curriculum at VP&S. She directs

Book of Profiles of Alumni: The Caring Heirs of Samuel Bard

Distinguished alumni and their family members attended a 2019 Alumni Reunion Weekend book signing of "The Caring Heirs of Doctor Samuel Bard," published by Columbia University Press. The new anthology brings together 55 profiles of Columbia-educated doctors who made fundamental contributions to medicine, academia, public health, and society in the past 80 years. The profiles relied on first-person interviews to reveal the personal underpinnings of each of these renowned doctors' professional achievements.

Author Peter Wortsman, who was managing editor of alumni publications at VP&S from 1987 to 2018, sums up the book: "A medical mosaic of sorts, these doctors' histories invert the stethoscope, as it were, permitting the reader to listen in on the heartbeat of American medicine at its best."

Books are on sale through the Alumni Association. Inquiries can be made via email (psalumni@columbia.edu) or phone (212-305-1472).

JENNY GORMAN

AT THE MAY 2019 BOOK SIGNING. Back row from left: Dean Lee Goldman, Thomas Morris'58, Fadlo Khuri'89, Thomas Gorham (widower of Davida Coady'65), Thomas Frieden'86, and Ron Cohen'81; Bottom row from left: Jane Blumberg (daughter of Baruch Blumberg'51), David Wu, MD (son of Clyde Wu'56), Eve Slater'71, Karen Hein'70, Suzanne Oparil'65, author Peter Wortsman, Kenneth A. Forde'59, P. Roy Vagelos'54, and Story Musgrave'64

Daniela Lamas'08: TV Writer

Daniela Lamas'08

When Daniela Lamas'08 boarded a plane from Boston to Los Angeles in January 2019, she was on the verge of a new plot twist in her career. She would be taking a two-month break from the intensive care unit at Brigham & Women's Hospital to write a few episodes for the second season of the Fox medical drama "The Resident."

Until then, Daniela was a pulmonary and critical care doctor who also was on the faculty of Harvard Medical School. She has put her writing skills to work as a medical reporter at the Miami Herald, as a contributor to the New York Times, and as the author of a book, "You Can Stop Humming Now: A Doctor's Stories of Life, Death, and In Between."

She was eager to apply her experiences to a medical drama, especially one known for its bold, complex take on medicine. She has long been a fan of medical television—she has watched the 15 seasons of "ER" twice—and relished the chance to conjure storylines where the outcomes follow her script.

Since her first stint on "The Resident," she has signed on as a writer for the show's third season, which debuted in September.

"There's a real deep desire and drive in me to tell stories about what's happening in the hospital," says Daniela. "In the beginning, I was drawing on my experiences as an attending physician in pulmonary and critical care medicine. Lately I've been thinking a lot more about what it was like to be a medical student and a resident and returning to those formative memories to plumb them for ideas to bring to the writer's room."

the "Foundations of Clinical Medicine" seminars course.

See Alumni in Print to read about a book co-written by Jacqueline Worth. Jacqueline's practice, Village Obstetrics, delivers babies at Mount Sinai Hospital.

1998

Matt Iseman, cohost of NBC's "American Ninja Warrior" and stand-up comic, was a co-grand marshal of the Indianapolis 500 race on May 26, giving the traditional "drivers to your cars" command during a pre-race ceremony. He also is hosting "Live Rescue," a documentary series on the A&E network.

2000

See Alumni in Print to read about a book written by Shannon Sovndal. Shannon is a fellow of the American College of Emergency Physicians and is currently the medical director for Med Evac (Rotor Wing Service) and multiple fire departments in Colorado. Previously, he was a team physician for the Garmin-Sharp professional cycling team.

2003

Salila Kurra was appointed co-chair of the subcommittee that oversees the fundamentals curriculum at VP&S. Salila is one of six VP&S advisory deans and directs the endocrine section of the "Body in Health and Disease" course.

2008

At the 2019 alumni reunion, Thomas E. Lo, president of the VP&S Alumni Association, delivered welcoming remarks on Dean's Day and at the VP&S Alumni Gala.

2009

See Alumni in Print to read about a book of short stories by Jacob M. Appel. Jacob is a physician, attorney, bioethicist, and social critic based in New York City. He taught for many years at Brown University and currently teaches at the Gotham Writers' Workshop and the Icahn School of Medicine at Mount Sinai.

2012/13 PhD

Nsikan Akpan was science producer on a "PBS NewsHour" series that received a George Foster Peabody Award. The five-part series, titled "The Plastic Problem," investigated the damage being done by single-use plastic.

2013

Suneel Kamath recently completed a fellowship in hematology/oncology at Northwestern University, and he has joined the Cleveland Clinic as a gastrointestinal oncologist. Suneel also recently published a paper in the Journal of the National Comprehensive Cancer Care Network that examines nonprofit funding for cancer research. The paper finds that


Suneel Kamath'13

despite ample funding for oncology, many of the deadliest and most common cancers—such as gastrointestinal cancer, gynecological cancer, and lung cancer—are comparatively underfunded.

2014

See Alumni in Print to read about a book co-written by Bianca Calderon-Brown. Bianca is a pediatrician in the Bronx and a member of the faculty of the Albert Einstein College of Medicine.

2016

See Alumni in Print to read about a book co-written by Jennifer Sotsky. Jennifer is a physician with a specialty in narrative medicine and a resident at CUIMC.


Jennifer Sotsky'16

2019

At the 2019 alumni reunion, Kyle Bolo received the award given to a graduate in recognition of interest in and devotion to VP&S and its alumni association.

House Staff Alumni

James C. Chan, who completed a research fellowship in pediatric nephrology at Columbia from 1968 to 1970, has edited a multiauthored volume, "Clinical Disorders of the Kidney." James is currently a professor of pediatrics at Tufts University. Columbia pediatric nephrologist Natalie Uy, MD, and Catherine Kavanagh, MD, a postdoc clinical fellow in pediatric nephrology at VP&S, are among the authors. The book provides a comprehensive overview of the literature on kidney disorders.

Lisa Mellman PSY'91/HON'19: Keeping it All in Perspective

By Julia Hickey

The view from Lisa Mellman's 11th floor office in the Vagelos Education Center stretches on a clear day over Washington Heights rooftops to the Bronx and East River to the Whitestone and Throgs Neck bridges into Queens, tiny at the horizon. Looking out at this expanse, one notices a framed map of Colorado, Dr. Mellman's home state, tipped against the window.

"I love maps. I love seeing how things are laid out, and how you get from point A to point B," says Dr. Mellman.

These are apt words from the senior associate dean for student affairs at VP&S since 2005 and the Samuel Rudin Professor of Psychiatry at CUMC, who, since arriving at Columbia for residency in 1982, has dedicated her life to easing the transitions of students, trainees, and patients from A to B and points beyond.

JENNY GORMAN

"It's no secret amongst VP&S students that the buck stops with Dean Mellman," says fourth-year medical student Sarah Soo-Hoo, whose mother was suffering from stage 4 lung cancer when she matriculated as a first-year. "I knew I could rely on her as my rock. Medical school can be very stressful, to say the least. But during this time of so much chaos and unpredictability, Dean Mellman made sure that medical school would be the least of my worries."

The two personalized a schedule that would allow Ms. Soo-Hoo time with family, without giving up on her goal to complete an MBA before graduation in 2021 from the MD/MBA dual-degree program. When her mother died the night before the start of her OB/GYN clinical rotation, Ms. Soo-Hoo contacted Dr. Mellman. She told Ms. Soo-Hoo, "Take all the time you need."

Always in Motion

Admittedly "always in motion," by 7 a.m. Dr. Mellman is either swimming laps at her local Y or counseling psychiatric patients at Columbia before beginning her duties in the student affairs office. And though constant movement might prove unsettling to some, velocity has firmed her poise and streamlined her diction. From outlining Columbia's strengths in the biological and psychodynamic aspects of psychiatry that drew her to residency here to welling up with emotion when describing the 11th grade teacher who urged her to take AP chemistry, launching her resolve to become a doctor, she speaks with a deliberate cadence that is calm and reassuring.

"I think touching the careers of thousands of students and residents really is *the* most meaningful thing to me. Because I know they have in turn touched so many patients' lives, have developed new discoveries in research, have just gone on to so many roles in medicine," says Dr. Mellman. "And the mother in me—they are all like my children—it just touches my heart."

Dr. Mellman's mother, Genevieve, was born and raised in Guatemala to Jewish parents who emigrated from Eastern Europe before the Holocaust. "She was smart. She could have done anything," Dr. Mellman says of her mother, who died in 2013. "But she didn't grow up in an era where she had those opportunities."

Genevieve moved to Denver, Colorado, was married, and had Lisa as her second child by the age of 20. As a youth Dr. Mellman joined her grandparents for summers abroad when they lived in Brazil and Israel. Her mother completed college in her 50s and used her Spanish fluency to launch a career as a court interpreter.

After falling in love with biochemistry during her AP chemistry class in high school, Dr. Mellman attended the University of Colorado. But it was not until her final clerkship while pursuing an MD at Case Western University that she experienced the epiphany that psychiatry was the specialty for her. "Meaning has enormous importance to me, and so does trust," she says. Psychiatry allowed for deep connections with patients across cultures and life experiences.

She also met her husband, Torbjoern Nygaard, MD, at Case Western, while he was a resident and she was an intern, both in medicine.

Always motivated to study Spanish, Dr. Mellman was not surprised to end up in the Latino community of Washington Heights for psychiatry residency at Columbia, where she rose to chief resident. She was asked to co-direct an inpatient unit on the 12th floor of the Neurological Institute, the same floor where she now treats patients. "I have gone full circle," she says.

Dr. Mellman soon started psychoanalytic training and gave birth to the first of her two sons before directing the outpatient clinic. In 1993, she was named associate director for the psychiatry residency, pursued scholarly projects, and joined major psychiatry education organizations. She served as president of the American Association of Directors of Psychiatry Residency Training, chair of the fellowship program for the American Psychoanalytic Association, and chair of committees in graduate medical education and in psychotherapy for the American Psychiatric Association. In these roles, she helped establish competencies for training, including in psychotherapy, throughout the country.

"Those were very, very busy years," she says of her early years at Columbia, but then adds, "I mean, all the years were busy years!"

She was an advisory dean at VP&S in 2003 before succeeding long-time student affairs dean Linda Lewis as senior associate dean for student affairs.

Dr. Mellman now oversees all aspects of student life, including student-run clinics, athletics, and the P&S Club, activities that foster the humanism and self-knowledge to become empathetic physicians. She offers daily advising hours to help students chart their career paths and writes, with assistance from her staff, each student's MSPE, the all-important performance evaluation that is essential to their residency application.

AMELIA PANICO

Lisa Mellman with Christopher Travis'19 at Match Day in March 2019.

"It's the process that I love, not just the outcome," Dr. Mellman says of her collaborative roles as dean, psychiatrist, and administrator. "The people part is really vital for me, because the changes occur within a relationship."

Dr. Mellman has taken on new roles as of late, with a silent cameo in three Bard Hall Players productions (her personal favorite was as a terrified patient in the dentist's waiting room in "Little Shop of Horrors") and, not least, as an honorary member of the VP&S Alumni Association.

"To be honored by the institution in which I have developed my entire career, and to be honored in this way, so surpasses any expectations I ever had in my life," she says. "When I came here to interview as a resident, I wanted to be like those faculty members that I admired so much, and it blows my mind to be one of them."

After nearly four decades of big-picture thinking at Columbia, Dr. Mellman manages to find time to tend to her own well-being with her family and friends, weekly dates with her grandchildren, and golfing.

"The depth of focus that's required in golf I find enormously relaxing," she says. "As a life-long learner, I love the challenge of the game and being in the zone. When I am playing or when I'm at the driving range, everything else just fades away."



alumni *in print*

By Tim Gahr

Off the Tracks: Cautionary Tales About the Derailing of Mental Health Care (Volumes 1 & 2)

Paul W. Mosher'63 and Jeffrey Berman, PhD

IPBooks, 2019

Dr. Mosher has co-authored two volumes about the many and varied ways that the relationship between patient and therapist can go awry. While thousands of studies have concluded that 75% to 80% of patients who participate in psychotherapy show improvement, the power of this treatment makes it dangerous when misused. The first volume focuses on boundary violations in the treatment relationship, while the second surveys events in mental health history, ranging from a landmark court case to bizarre surgeries, even covering what happened when psychoanalysis met the alien abduction craze. Dr. Mosher and his co-author present these stories not to condemn modern treatment methods, but to provide cautionary tales for mental health professionals striving to understand their role in the treatment relationship and to use their best judgment with patients.

Neuroimmunology

Robert Lisak'65

Oxford University Press, 2019

Dr. Lisak co-edited this newest volume in Oxford University Press's Contemporary Neurology Series. He also was first author of a chapter on "Immune-Mediated Disease of the Neuromuscular Junction," and he co-authored an introduction on the fundamentals of neuroimmunology and a chapter on "Therapies of Neuroimmunologic Diseases." The book gives readers a practical, clinical, and scientific background on a diverse range of common and rare neurologic disorders. Clinical chapters cover the epidemiology, pathology, pathogenesis, and pathophysiology of diseases and describe testing, diagnosis, and treatment in real-world situations. The book is a resource for physicians and other health care practitioners who care for people with neuroimmunologic diseases.

Introducing the Core: Demystifying the Body of an Athlete

William C. Meyers'75

SLACK Books, 2019

Dr. Meyers is lead editor and author of this book, which features contributions from more than 40 world-renowned experts in the fields of athletic training, orthopedics, and sports medicine. On top of its significance in sports, the core, until now, has remained a mystery to most physicians and athletes. The book illuminates the role of the core through the perspectives of diverse experts not afraid to challenge prevailing wisdom and who argue strongly that the term "sports hernia" should be banned from the medical literature. The book is for health care professionals, elite and amateur athletes, as well as the entire public interested in how the engine of our body really works.

Conquering Lyme Disease: Science Bridges the Great Divide

Brian A. Fallon'85 and Jennifer Sotsky'16

Columbia University Press, 2019

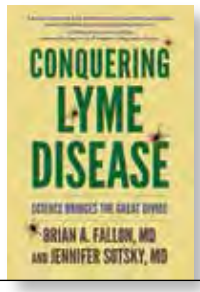
Now out in paperback, this authoritative book published in hardcover in 2017 gives patients and health care practitioners a timely overview of the cutting edge science that is transforming how Lyme disease is addressed. With more than 400,000 cases diagnosed each year, Lyme disease is the most common tick-borne illness in the United States, but doctors remain deeply divided on how to treat the disease, which has diverse manifestations and for which diagnostic tests have significant limitations. Drs. Fallon and Sotsky take a frank look at the unique challenges the disease presents, ultimately finding hope. They believe that new and emerging diagnostic tests, treatments, and prevention strategies will be able to stop the expansion of Lyme and other tick-borne diseases and reduce the number of cases.

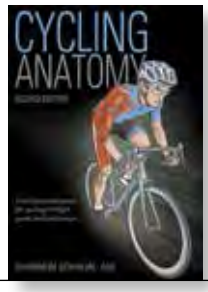
The New Rules of Pregnancy

Jacqueline Worth'97, Adrienne L. Simone, MD, and Danielle Claro

Artisan Books, 2019

Dr. Worth has co-authored a comprehensive yet accessible book on self-care during preg-





nancy. "Calm" and "chill" are not words most people associate with pregnancy, but Dr. Worth and her co-authors are trying to change that. Their book answers questions busy readers are likely to have during pregnancy, from the practical ("Can I fly while pregnant?") to the more complex ("What makes it postpartum depression?"). The book even covers the so-called "fourth trimester," which involves nursing and trying to get back to normal life. In a blurb, Amy Poehler writes that the book "contains all you need to know about the amazing scifi adventure that is having a baby."

Cycling Anatomy (2nd Edition)

Shannon Sovndal'00

Human Kinetics, 2019

The second edition of Dr. Sovndal's book includes 89 of the most effective cycling exercises plus step-by-step descriptions to help cyclists increase their speed, strength, and endurance. Full-color anatomic illustrations depict the active muscles involved in cornering, climbing, descending, and sprinting. Readers will learn not just the basics, but also how to modify exercises to target specific areas of the body and to minimize common cycling injuries, ultimately learning how to put it all together to develop an individualized training regimen. Dr. Sovndal writes from experience: As a team physician for the Garmin-Sharp professional cycling team for seven years, he has worked every major race in Europe and the United States, and he also founded an elite-level sports training and wellness management business.

Amazing Things Are Happening Here: Stories

Jacob M. Appel'09

Black Lawrence Press, 2019

Dr. Appel's latest collection of short stories "renders our post-9/11 world through a variety of personalities, each narrating their unique and startling stories," according to author Marilyn Krysl. Among the nine short stories included in this collection are "Canvassing," which previously appeared in Subtropics, and "Helen of Sparta," which appeared in the Iowa Review. In a blurb, author Peter Markus writes that these stories are "written with equal doses of heft, hilarity, and heart." Dr. Appel has published more than 200 short stories and several novels, plays, poems, and works of social criticism.

(Editor's Note: The title of Dr. Appel's collection of stories has no connection to NewYork-Presbyterian Hospital, which uses the phrase in its marketing campaign.)

Minority Empowerment: How to Achieve Professional Success in America

Bianca Calderon-Brown'14 and Randall Brown

Floricanto Press, 2019

Dr. Calderon-Brown's new book, co-written with her husband, Randall Brown, is a guide for people of color navigating their professional futures. Drawing on their experiences at four Ivy League institutions, Dr. Calderon-Brown and her husband provide a road map for minority students struggling with everything from racism and microaggressions to setting goals and organizing. Chapters like "Money" and "Don't be Afraid to Get Help" concisely summarize what young people can do to prepare themselves for the challenges they will face from America's educational and professional establishment.

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

Bonita Eaton Enochs, Editor
Columbia Medicine
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630 W. 168th St., Box 153
New York, NY 10032

Please include an email address for the editor's use only.

Send inquiries about books to columbiamedicine@columbia.edu

ALUMNI PROFILE

Peter Bolo'85, the Optimist

By Julia Hickey

JENNY GORMAN

It was during a second-year lecture by psychoanalyst Eric Marcus, MD, about primary process thinking—the language of dreams—that Peter Bolo'85 realized psychiatry could be for him.

"Wow, I am sitting here in medical school in this lecture that could be in art history," he says. "Or philosophy."

Imagining the nonlinear bursts and symbolic structures of the unconscious mind brought the young student relief from the objective world of medical school and made him think about his love for modern art: "It doesn't follow the normal rules of time and perception that we think of in our secondary process, logical world. It's something that you need to relax with and let your mind wander a bit," he says.

No wonder that, to this day, his favorite artist remains Marcel Duchamp, the irreverent father of conceptual art who intentionally obscured his authorship by employing alter egos: There was the identity "R. Mutt," who submitted a urinal titled "Fountain" to a nonjuried art show in 1917 (it was rejected). His feminine nom de plume "Rrose Selavy" was variously interpreted as: *Eros, c'est la vie* ("Passion, that's life"), or *arroser la vie* ("to make a toast to life"), or *la vie en rose* (literally, "life in pink," or to see the world through rose-colored lenses).

As for the artistically inclined Dr. Bolo, himself quite dapper with a shock of gray hair to match his tweed suit, one could imagine him having pursued another career, perhaps as a Broadway performer. Although he is the first to admit feeling the lure of a creative path, he chose medicine for the security it provided.

"I'm practical," he says.

Besides, who is to say that Dr. Bolo isn't living *la vie en rose*?

A 1985 photo shows Peter Bolo receiving the gold medal given to a graduating student in recognition of interest in and devotion to the school and its alumni association. His son, Kyle Bolo'19, received the same award in May 2019.

A Dramatic Beginning

At age 4, Peter Bolo fell down concrete steps face-first into his backyard while carrying a glass of water. He was hysterical, as he tells it, and his mother rushed him to the nurse who lived next door in their Detroit suburb. "I didn't even know what a nurse was," says Dr. Bolo, but she stopped the bleeding from a gash the length of his index finger and calmed his nerves. The experience left a strong impression, and as the third of four children in a family in the auto business, he decided, "In addition to the fact that I wanted to do something different than everyone in my family, that if people asked me, 'What do you want to be, little boy, when you grow up?' that I would say I wanted to be a doctor." Soon he was glued to the television set for house calls of "Marcus Welby, MD" and Dr. Gannon on "Medical Center."

Fifty years later, Dr. Bolo is chair of the Department of Psychiatry and Behavioral Health at Overlook Medical

Center and resiliency advocate of Atlantic Health System in Summit, New Jersey, where the "no-man's land" that greeted him when he arrived in 1999 has flourished under his direction into a 24-bed voluntary inpatient unit with extensive outpatient programs and luminous skylights. Among his greatest accomplishments: "using humor to make frightened people comfortable."

During psychiatry rotations at VP&S, he found the symptoms of delusion, hallucination, and mania that others found horrifying to be fascinating. Then-resident Lisa Mellman (now senior associate dean for student affairs) taught him the mental status exam, the psychological equivalent of a physical exam.

"I loved the fact that you yourself were your examination tool, as opposed to a stethoscope and a whole bunch of lab values and radiographic findings. And that dovetailed with my interest in acting." With the Bard Hall Players, he played both the sexually adventurous "Woof," anthropologist Margaret Mead in the hippie rock musical "Hair," and lovesick Lysander in "A Midsummer Night's Dream."

Empathy is essential to both acting and doctoring, Dr. Bolo says. "Getting into character and becoming another person requires an ability to imagine and experience emotions that another is having, and that acting skill translates into being able to perceive and briefly feel what patients and families are experiencing and better understand their worries and reactions. Empathy and compassion go hand in hand here."

Besides, he never got too comfortable with the sight of blood. While other students vied for time dissecting a cadaver, Dr. Bolo competed to dissect the least. On the first day, he cut just "one little piece of the arm," and then "took a step back."

From the Superficial to the Deep

Bringing joy to medical contexts is not only Dr. Bolo's specialty, but a pastime. While at VP&S in 1983, he proposed to his wife, Dr. Laila Almeida, during her grueling internal medicine residency at NY-Presbyterian Hospital, where she spent every other night on call. "I was an intern feeling sorry for myself because it was my birthday," said Dr. Almeida, who now has a private dermatology practice in New Jersey.

Dr. Bolo convinced her to take a dinner break and duck into the tiny Nourishment Station off the cardiac intensive care unit. "I didn't want to wait after I got the ring so I decided to just meet her on her own territory since she was never home and I thought it would be kind of fun and witty," he said. He proposed to her between the sink and an ice machine.

As undergraduate students at the University of Michigan, the pair had met across wooden study carrels in the library when he was just 17, "which is a really good place to meet very stable, hard-working, successful people," Dr. Bolo says with a smile. She was two years ahead of him in her studies.

As a dermatologist and psychiatrist couple, "I always tease people that we go from the superficial to the deep. Plus, there is so much psychiatry in dermatology and for that matter all fields of medicine," he says.

Although Dr. Bolo would have preferred to stay at Columbia, says Dr. Almeida, they settled in New Jersey, "a place that was easier for me to work and be a working mom."

The two have traveled around the world together and want to see more, including more visits to the place Dr. Almeida's family is from, Goa, India. They recently hiked Machu Picchu with their children and toured Japan in October with classmate Peter Branden'85 and his wife, Pennie.

Dr. Almeida volunteers at Columbia once a month to supervise residents, which gave her a chance to visit one of their three children, Kyle Bolo, until he graduated in May 2019. He is now a resident in ophthalmology at USC.

"Dad always says that medicine is still a very good field and that the human connection aspect is unparalleled," says Kyle, who was just as involved in student life as his

Laila Almeida and Peter Bolo in 1978

father was. In May 2019, Kyle received the gold medal given to a graduating student in recognition of interest in and devotion to the school and its alumni association, the same award that his father received in 1985.

Two Commitments

Dr. Bolo says his primary commitment is to have fun every day at work. "I couldn't see myself in the stereotypical psychiatric office with a Persian carpet, two Eames chairs, and one patient. That's too sedentary and I'm too gregarious for that, so I decided to work in hospitals on interdisciplinary teams."

He has been known to bring a hockey stick to a smartboard presentation ("the boardroom never had a pointer!" he says) and to spice up a lecture about physician resiliency by serenading the hospital C-suite and department chairs with Miley Cyrus pop songs "Party in the USA," "Wrecking Ball," and "Malibu." (Yes, all three, and his favorite is "Malibu.")

The Bolo family, clockwise from top left: Henry, Kyle, Isabel, Peter Bolo, and Laila Almeida

The area of workforce burnout and resilience is a new playground for Dr. Bolo, who describes the executive aspects of health care as fascinating rather than frustrating and the incentives of the Affordable Care Act to keep people well as "a personal call to arms." Dr. Bolo fights to remove barriers to accessing mental health care and cites situations in which his team works hard to demonstrate medical necessity to the managed care companies who act as gatekeepers to psychiatric coverage, especially for the marginalized or elderly in his program or for Alzheimer's patients with behavioral disturbances.

He also has developed intensive outpatient programs to treat adult psychiatric and addiction illness so that patients who graduate from inpatient services can remain in the fold. And in a separate project, Dr. Bolo advocates for increased goals-of-care conversations throughout the medical center, with more patients documenting their choices about what care they want and do not want. This has driven down use of ICU by those in the dying process.

He has built a staff and culture of people who truly want to help others. "You hire people and let them know: 'These are our values,'" he says.

To promote a culture of compassion and collaboration, Dr. Bolo tends to the emotional needs of the hospital's many caregivers, which include not only physicians but also nurses, case managers, social workers, crisis clinicians, and concierges. He opens the hospital's bimonthly Schwartz Center Rounds with a mindful meditation exercise and healthy food. During these multidisciplinary sessions, staff have a supportive space to share their vulnerable first-person experiences of working with patients and families.

He is thrilled about a palpable reduction in stigma against mental illness in the past decade and credits the millennial generation and high-profile celebrities who speak openly about their experiences.

"The brain is the most complicated, interesting organ, in my opinion. It shouldn't just be viewed only as a black box onto which we project our bias and historical myths about mental illness. The brain is an organ just as the heart is, and you can have brain failure just like you can have heart failure," he says.

Dr. Bolo inherited his mother's unflagging sense of optimism, he says, which is helpful in a clinic where the patients arrive very sick, often having failed other treatments. "I am super into hope and my main thing is to try to instill hope in everybody that I speak with. It's about solidifying that therapeutic relationship, which is the currency of the healing." He involves patients, whenever possible, in making a plan of action together and shaking on it.

Dr. Bolo's second commitment takes into account each patient's unique layers and identity—as well as his own. "I have found it invaluable in successfully connecting with and impacting patients to always identify something I truly appreciate about them, whether I choose to let them know or keep it to myself."

Kenneth A. Forde: Surgeon, Alumnus, Trustee, Friend

Just a few weeks after the 2019 VP&S alumni reunion, when he celebrated his 60-year class reunion with his fellow P&S Class of 1959 classmates, Kenneth A. Forde died at his home June 2, 2019, of heart failure. He was 85.

He was so much more than the words that fit in the headline above: He also was a mentor and teacher, a trusted and compassionate physician, a researcher, a pioneer in his surgical field, and a generous benefactor. Retired since 2006, Dr. Forde remained active at Columbia University and NewYork-Presbyterian Hospital as a Columbia University Trustee and NewYork-Presbyterian Trustee, a member of the Columbia University Irving Medical Center Board of Advisors, and a member of the Board of Visitors of Columbia's School of Nursing. His foundation, the Kenneth A. and Kareitha O. Forde Private Family Foundation, committed $1 million to establish the Kenneth A. Forde, MD, Teaching Scholar Fund in the cardiology division of VP&S, just the latest of his donations to VP&S.

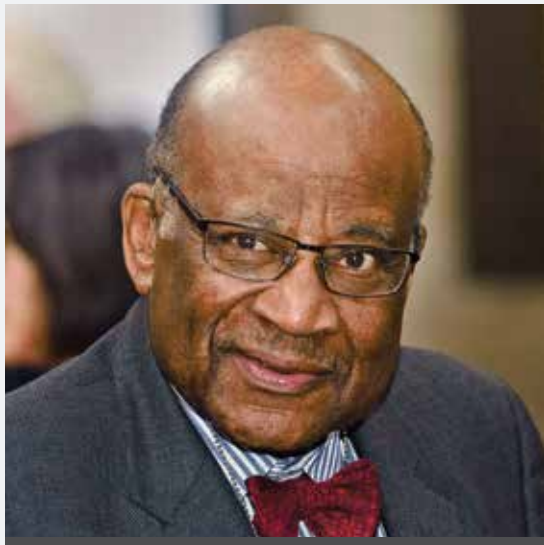
The six decades since his graduation from Columbia included 50 years on the VP&S faculty. He joined Columbia upon returning from Army service, starting his academic career as an assistant in surgery. He rose through the ranks to become professor of clinical surgery in 1983 and was named the Jose M. Ferrer Professor of Clinical Surgery in 1997. The Trustees named him the Jose M. Ferrer Professor Emeritus of Clinical Surgery upon his retirement.

As a surgeon, he gained prominence through his contributions to gastrointestinal endoscopy and colorectal surgery. An early proponent of the importance of colonoscopy for screening, he came onto the national stage when he performed a televised colonoscopy on "Today" anchor Katie Couric. It had a positive effect on screening rates nationwide. He co-founded the Society of Gastrointestinal and Endoscopic Surgeons—SAGES—and served as president of SAGES and the New York Surgical Society.

He received multiple honors from his undergraduate alma mater—City College of New York—and from Columbia (including multiple awards for teaching) and the VP&S Alumni Association. He received the Columbia University Alumni Federation Medal and was president of the VP&S alumni association for two years. He was longtime co-chair of the Class of 1959.

A professorship and an endowed scholarship were established in his name by his patients.

Among the organizations that honor his service to Columbia is the Kenneth A. Forde Diversity Alliance, established in 2014 to bring together minority medical students, resident physicians, fellows, graduate students, faculty, research scientists, and allies across the medical center to empower the community through networking opportunities, diversity awareness, mentoring relationships, and community service and leadership development opportunities.



Ken Forde

At a memorial service held in July at the Cathedral of St. John the Divine in Manhattan, Spencer E. Amory, MD, the current Jose M. Ferrer Professor of Surgery, spoke directly to his mentor: "You gave us ample reason to say nice things about you. Today I offer these two words: 'Thank You.' Thank you for sharing your skills in endoscopy, the future of surgery as you described it. Those skills have brought relief to thousands within and beyond our borders. Thank you for your strategic and material support in promoting minimal access surgery at Columbia and through SAGES. I was an early beneficiary. Patients and surgeons continue to enjoy the rewards of your foresight. Thank you for modeling exceptional communication, diagnostic skills, humility, compassion, and forgiveness. Thank you for the confidence you demonstrated in allowing me to care for your patients. Thank you for listening and for supporting me during my professional and personal challenges. We thank you and Mrs. Forde for graciously accepting the role of 'Papa and Mama Forde.'"

Dr. Forde's wife of 60 years, Kareitha "Kay," died in 2017. He is survived by his son, Trevor, two grandchildren, and a sister.

in memoriam

OTHER FACULTY DEATHS

Christopher J. Allegra, MD, assistant clinical professor of psychiatry, died Sept. 5, 2019.

David H. Baker, MD, the James Picker Professor Emeritus of Radiology and former chair of radiology, died Sept. 25, 2019.

Myles Behrens, MD, professor of ophthalmology, died April 5, 2019. See more in Alumni In Memoriam, Class of 1962.

John T. Flynn, MD, professor of ophthalmology, died March 19, 2019.

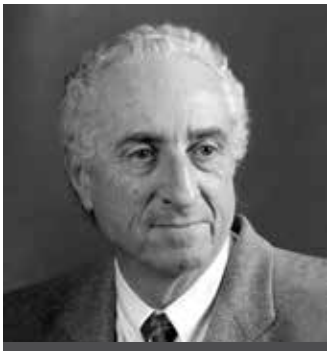
Thomas P. Jacobs, MD, the Roy and Diana Vagelos Professor of Medicine, died in April 2019.

Myles Behrens

James R. Malm

Thomas P. Jacobs

Edward L. Nickoloff



Donald F. Klein

Theodore Van Itallie

Ann S. Jennings-Purnell, MD, retired assistant clinical professor of medicine at Harlem Hospital, died March 9, 2019.

Donald F. Klein, MD, professor emeritus of psychiatry, died Aug. 7, 2019.

James R. Malm, MD, professor emeritus of surgery, died Sept. 21, 2019. See more in Alumni In Memoriam, Class of 1949.

Edward L. Nickoloff, DSc, professor emeritus of radiology (radiation physics) (in environmental health sciences) at CUMC, died March 11, 2019.

Paul J. Poppers, MD, former faculty member in anesthesiology, died June 10, 2019.

Robert Richard Strome, MD, assistant clinical professor of ophthalmology, died May 30, 2019.

Theodore Van Itallie, MD, professor emeritus of medicine, died Sept. 14, 2019. See more in Alumni In Memoriam, Class of 1945.

Gerald S. Weinberger, MD, assistant professor of clinical anesthesiology, died July 10, 2019.

ALUMNI

1945

Theodore Van Itallie, an obesity expert and leading researcher in metabolic diseases, died Sept. 14, 2019, at the age of 99. He demonstrated that weight loss was a function of calorie reduction and publicly refuted the "calories don't count" school of weight loss. He served in the Navy Medical Corps and saw active duty in the Pacific theatre before completing residency training at St. Luke's Hospital. He accepted a research and teaching position at Harvard Medical School and returned to St. Luke's as director of medicine in 1957. St. Luke's became a Columbia University teaching hospital under his leadership. From 1975 to 1988, he ran the first NIH-funded center for obesity research. He later consulted on clinical research and devoted special attention to ketone esters as a therapeutic agent for Parkinson's and Alzheimer's diseases. He was a dedicated amateur historian, authoring numerous articles on the history of the Florida west coast. Dr. Van Itallie is survived by his five children, six grandchildren, and four great-grandchildren.

1946

Horace M. Shaffer, who practiced internal medicine in his hometown of Trenton, New Jersey, until 1987, died Sept. 5, 2019. He was 96. After graduating with his MD, he served in the Navy on the ship USS Franklin D. Roosevelt. He was an intern at Bellevue Hospital and completed his residency at Veterans Hospital. He studied the classics, humanities, languages, and visual arts, and he practiced Dzogchen, a form of Tibetan Buddhism. Dr. Shaffer is survived by his wife, Joyce, three of his four children, two stepchildren, seven grandchildren, and two great-grandchildren.

Horace M. Shaffer'46

1948

Arthur Aufses, an esteemed surgeon and chair of surgery at Mount Sinai Health System in New York City for 22 years, died April 15, 2019. He was 93. He introduced laparoscopic surgery, oversaw the expansion of ambulatory surgery, and introduced the hospital's transplant program. In 1988, Dr. Aufses organized the surgical team that performed the first liver transplant in New York state. He supported inclusion of female and minority surgeons. He co-wrote two books about the history of Mount Sinai Hospital.

Arthur Aufses'48

1949

William C. Fisher, an army colonel and chief of dermatology at William Beaumont Army Medical Center in El Paso, Texas, died April 22, 2019. He was 95. Dr. Fisher served as a medical corpsman during World War II, as a captain in combat in South Korea, and as commanding officer of the 8th Field Hospital in Nha Trang, Vietnam, during the Tet offensive. He later practiced dermatology in Farmington, New Mexico. He loved international travel. He is survived by his wife, Carolyn, four children, five grandchildren, and three great-grandchildren.

William C. Fisher'49

James Royal Malm, professor emeritus of surgery at VP&S, died Sept. 21, 2019. He was 94. He enlisted at age 17 in the V12 Navy College Training Program and attended Princeton before receiving his MD degree from Columbia. During the Korean War, Dr. Malm was called into active duty and served as a junior medical officer aboard USS Philippine Sea, often in Korean waters, and recalled performing an appendectomy during a typhoon. He returned to New York City for general and thoracic surgical residency training at what was Columbia-Presbyterian Medical Center and was appointed to the faculty in 1958. He was appointed chief of the cardiac surgical service in 1960 and held the position for more than 30 years. Dr. Malm and his close partner, Dr. Frederick O. Bowman, performed pioneering work in and developed therapeutic standards for the surgical treatment of tetralogy of Fallot. He also created national standards for thoracic surgical education and residency training programs. He retired from surgical practice in 1991 and was honored by VP&S with a Distinguished Service Award in 1996. He enjoyed tennis, skeet and trap, fishing, and golf. He is survived by his wife, Constance, four daughters, six grandchildren, and three great-grandchildren.

1950

J. William Silverberg, a psychiatrist, died July 21, 2019, at the age of 95. Dr. Silverberg enjoyed bluegrass, Lindying, water skiing, tennis, and food. He is survived by his wife, Shirley, three children, several grandchildren, and a great-grandson.

1953

Marvin Zimmerman, an internist, died April 21, 2019. He was 90. After completing his internship at Mount Sinai Hospital, he served as a doctor at the Air Force base at Laredo, Texas. He went on to residency at Yale New Haven Hospital. He enjoyed traveling to exotic places and was an avid tennis player and sailor. He loved museums and opera and was a founding member of Long Wharf Theatre. He is survived by his wife, Beverly, three children, and six grandchildren.

1954

Burton D. Cohen, longtime professor of medicine at the Albert Einstein College of Medicine, died Feb. 5, 2019. He served in the Army in the Pacific during World War II. He trained in internal medicine at Bellevue Hospital, where he entered the new subspecialty of nephrology. He completed training as chief medical resident at Memorial Sloan Kettering. Dr. Cohen was a clinical investigator for the Veterans Administration in New York and later a career scientist for the Health Research Council of New York City. He joined the staff of the Bronx Hospital (later Bronx-Lebanon) and became director of the Department of Medicine, a position he held until retirement in 1994. He continued to publish original research in the specialized field of renal failure even after retirement. Dr. Cohen was a dedicated guitarist who also loved tennis, sailing, and windsurfing. He is survived by his wife, Sunantana, three children, and three grandchildren.

Paul Gulyassy, a nephrologist, died May 15, 2019. He was 90. He completed his residency at UCSF, with a pause to join the Army medical corps at Fort Knox, Kentucky, where he achieved the rank of captain. He later joined the biomedical research team of Dr. William Schwartz at Tufts University. In 1962, he joined UCSF's new Cardiovascular Research Institute. He was assistant professor of medicine at Moffitt Hospital, UCSF, and was later recruited to create the nephrology division at UC Davis, where he stayed for more than 20 years. Dr. Gulyassy loved Mexico, the arts, and tennis, which he played into his 80s. He is survived by his wife, June, two daughters, and two grandsons.

Glenn Langer, a cardiologist who helped disadvantaged students attend college, died June 19, 2019. He was 91. After medical school he served two years in the Army in Texas. In 1960, he joined the American Heart Association Cardiovascular Research Laboratories at UCLA. Beyond being a notable professor of medicine and physiology, he directed cardiovascular research and became vice chair of physiology and associate dean for research. Upon retirement in 1997, his philanthropy grew into the Partnership Scholars Program to support pre-college youth. The program has awarded scholarships, cultural experiences, and mentorship support to 622 students in Los Angeles and Mendocino counties. Dr. Langer loved nature, world literature, music, and dogs. He is survived by his wife, Renate, a daughter, a stepson, four grandchildren, and three step-grandchildren.

1955

Stanley Bergen, the founding president for 27 years of the University of Medicine & Dentistry of New Jersey, died April 24, 2019. He was 89. Dr. Bergen was serv-

ing as first senior vice president of the New York City Health and Hospitals Corporation when the state of New Jersey, in response to a shortage of doctors and dentists, selected him to establish the health sciences campus in central Newark. Breaking ground in 1971, it was the first medical school in the state and is now part of Rutgers. He also was instrumental in creating the Cancer Institute of New Jersey. Dr. Bergen was a defining figure among New Jersey health care policymakers and a firm believer in health care as a human right. A native of New Jersey and graduate of Princeton, he also served in the Army and the National Guard. He is survived by his wife, Suzanne, three children, and five grandchildren.

John S. Wilson, a surgeon, died Sept. 9, 2019, at age 88. He served his internship and general residency as chief resident at Bel-

John S. Wilson'55

levue Hospital and completed his surgical residency at Hartford Hospital in Connecticut. Before moving to Silver City, New Mexico, in 1964, Dr. Wilson served four years as a captain and surgeon in the Army, stationed in La Rochelle, France, and Fort Sam Houston, Texas.

1956

Christopher Hodgman, professor emeritus of psychiatry at the University of Rochester, died June 2, 2019. He was 87. He served as a captain in the U.S. Army in Germany. He completed residency in psychiatry at Strong Memorial Hospital in Rochester. He is survived by his wife, Joanna, four children, eight grandchildren, and two great-grandchildren.

1957

Hugo L. Deaton, who practiced general, vascular, and thoracic surgery, died Feb. 12, 2019. He was 87. He completed his residency at Duke University, then joined his father-in-law, the late Glenn R. Frye, as a partner in the Hickory Surgical Clinic, where he practiced for 30 years. He served as president of the North Carolina Surgical Association. He was a member of the Holy Trinity Lutheran Church. Dr. Deaton loved sailing, which he taught himself on the Chesapeake Bay as a teenager. He is survived by four children and 11 grandchildren.

1958

Uriel Barzel, professor of medicine at Albert Einstein College of Medicine and attending physician in endocrinology and metabolism at Montefiore Hospital Medical Center in the Bronx, died Sept. 19, 2019. He was 90.

Lawrence P. Green, a Navy veteran and member of Lafayette Church of the Nazarene in Lexington, Kentucky, died July 19, 2019. He was 86. He is survived by his wife, Shirley, three children, 12 grandchildren, and nine great-grandchildren.

Donald Lindberg, a groundbreaking expert in medical informatics who directed the National Library of Medicine within the NIH for 31 years, died Aug. 17, 2019. He was 85. He led the National Library of Medicine into the computer era and made its holdings available to researchers globally by overseeing the digitization of Index Medicus into PubMed, which provides free internet access to research published by international, refereed medical journals. During his tenure, the library launched MedlinePlus.gov and ClinicalTrials.gov, widely used online repositories of genetic and genomic sequences. The Unified Medical Language System was developed to integrate diverse biomedical vocabularies with inter-operable search terms. Dr. Lindberg also supervised the free use of clinical

Donald Lindberg'58

terminology standards for electronic health records, as well as the diffusion of specialized resources in fields including toxicology, health services research, public health, consumer health, disaster and emergency response, and the history of medicine. Dr. Lindberg wrote several books and held recent medical faculty appointments at the University of Maryland and the University of Virginia. He is survived by his wife, Mary, two children, and two grandchildren.

Allan Lawrence Toole, a surgeon and associate professor at the Yale School of Medicine, died Sept. 2, 2019. He was 87. His internship, fellowship, and residency were at Yale, followed by his chief residency in surgery at the VA Hospital in West Haven, Connecticut. He opened a private practice with his lifelong friend and medical partner, Dr. Harold Stern, and was affiliated with Yale-New Haven Hospital and the Hospital of Saint Raphael. Dr. Toole performed one of the first pulmonary embolectomy procedures during open-heart surgery. He was a golfer, gardener, swimmer, and devoted hockey fan. He is survived by four children and eight grandchildren.

Robert Van Cleve, a cardiologist, died July 8, 2019. He was 87. He completed his internship and two years of residency at the University of Virginia Hospital, followed by work at Barnes Hospital in St. Louis. He was lieutenant commander at Balboa Naval Hospital in San Diego. He went on to a cardiology fellowship at Harvard and in 1965 moved to Jacksonville, where he became the second board-certified cardiologist in north Florida. He valued knowing his patients, volunteering his time to treat people who could not pay, and teaching doctors and nurses in training. He was an elder and trustee in the First Presbyterian Church. He is survived by his wife, Sarah, four children, and 11 grandchildren.

Carl Weiss, an orthopedic surgeon, died Aug. 1, 2019. He was 84. He served two years as a captain at Barksdale Air Force Base in Louisiana. Dr. Weiss later practiced at Garden City Orthopedics in Long Island. He is survived by three children and eight grandchildren.

1959

Robert Alan First, an orthopedic surgeon and Vietnam veteran who received a Bronze Star, died Feb. 9, 2019. He was 85. His post-

graduate training was in Boston at Brigham and Women's, Children's, and Massachusetts General hospitals. A major in the Army medical corps, he spent a year with the second MASH unit in Chu Lai. He later practiced orthopedics in Concord, Massachusetts. He was affiliated with Emerson Hospital, Harvard, and Tufts and was a fellow of the American Academy of Orthopedic Surgeons. His hobbies included woodworking, gardening, golf, and riding his BMW motorcycle. He owned a pack of West Highland terriers. He is survived by his wife, Susan, three biological and three chosen children, and two grandsons.

See Page 43 to read about Ken Forde.

Mark Izard, a nephrologist whom colleagues called the "father of dialysis in Connecticut," died July 15, 2019. He was 86. Born and raised in New York City, he moved to Connecticut for residency, where he was chief resident, president of the house staff, and editor of the Hartford Hospital Bulletin. He practiced internal medicine and nephrology for 50 years at Hartford Hospital, where he introduced kidney dialysis. He also developed percutaneous renal needle biopsy. He was on the faculty of the University of Connecticut, a nephrology consultant to the state Veterans Administration, chief of medicine at Bradley Memorial Hospital, and director of dialysis at Springfield Hospital. He chaired the Connecticut Commission on Dialysis and received many awards from the Kidney Foundation. Dr. Izard loved boating, supported the arts, and held a lifelong interest in historical preservation.

Jean K. Miller, a psychiatrist, died May 11, 2019, at the age of 85. She practiced in Bronxville until March of 2019. An avid

Jean K. Miller'59

birder and traveler, she visited all 50 states and toured around the globe. In her youth, she was a bicyclist and mountain climber. She is survived by four children and 10 grandchildren.

S. Richard Prothero, an orthopedic surgeon, died Jan. 5, 2018. He was 85. He conducted original laboratory research on diabetes in rats as an undergraduate at Bates College. After his internship at Mary Imogene Bassett Hospital in Cooperstown, New York, he served as a captain in the Air Force. He completed a residency in orthopedic surgery at Columbia, then joined Cape Cod Hospital in Hyannis. He liked to fix things, starting with bicycles and clocks, and, later, broken bones. Dr. Prothero collected stamps and was a star athlete, winning the Maine state championship in doubles tennis. He is survived by his wife, Helen, five children, and nine grandchildren.

1961

Alfonso H. Janoski, a retired endocrinologist and health care administrator, died May 4, 2019. He was 83. He served from 1965 to 1969 in the Army Medical Corps, attaining the rank of major. Former assistant professor of medicine and director of endocrine laboratories at the University of Maryland, he also maintained a private practice from 1982 to 1989 and directed the endocrine and metabolism clinic at Franklin Square Hospital. He became medical director of Prudential Healthcare in Baltimore in 1989 and later chief medical officer for the Tennessee Health Partnership in Knoxville, a managed care organization with 180,000 members. Before retirement, he was a medical officer at the U.S. Food and Drug Administration's Division of Medical Imaging and Radiopharmaceutical Drug Products. Dr. Janoski enjoyed golf, fishing, and model cars. He was a communicant for 50 years of the Roman Catholic Shrine of the Sacred Heart in Baltimore. He is survived by his wife, Judith, two children, two step-children, and four grandchildren.

1961 PhD

Gordon I. Kaye was a professor emeritus of pathology and laboratory medicine at Albany Medical College and a pioneer of alkaline hydrolysis, or flameless cremation. He died Feb. 9, 2019, at the age of 83. He received his first introduction to the excitement of laboratory research as a child at the Brooklyn Botanic Garden near his home. He was associate professor of surgical pathology and director of the F. Higginson Cabot Laboratory of Electron Microscopy at Columbia until he was named chair and Alden March Professor in the anatomy department at Albany Medical College in 1976. He consulted as editor of the Anatomical Record and reviewer of several medical journals. In 1993, his research, including the use of nuclear tracing isotopes, led him to found WR2 with Dr. Peter Weber to develop the necessary equipment for alkaline hydrolysis, which safely destroys all pathogens including prions that cause mad cow, scrapie, and chronic wasting diseases. He enjoyed cooking, baseball, and boating. He supported public libraries, public and private education, and classical music. He is survived by his wife, Nancy, two daughters, and three grandchildren.

1962

Myles Behrens, a world-renowned ophthalmologist and co-chief of the neuro-ophthalmology clinic at the Harkness Eye Institute at Columbia until his retirement in 2011, died April 5, 2019. He was 80. He was recognized with the Heed Ophthalmic Foundation Award in 1986 for his leadership, teaching excellence, and significant clinical and research contributions to the field of neuro-ophthalmology. He is survived by his wife, Marsha, two children, two step-children, and nine grandchildren.

Despine Coulis, a pediatrician and one of only eight women in her medical school class, died May 28, 2019. She was 82. After residency she settled in New Haven, Connecticut, and worked in public health to help children and families. She later practiced in Missouri and Massachusetts, serving the community at Greater Lowell Pediatrics until 2000. Devoted to the arts, Dr. Coulis loved the symphony and the opera. She also traveled extensively. She took college courses almost up to the time of her death. She is survived by her daughter and three grandchildren.

Karl William Waterson, a dermatologist, died Feb. 16, 2019. He was 83. An Army captain at Fort Totten, New York, he later trained in dermatology at UCSF and practiced for more than 40 years in locations including New York, California, New Jersey, West Virginia, Missouri, Michigan, and New Hampshire, where he started a private practice in 1991. He was a member of several choirs and delighted his family with rendi-

tions of Neil Diamond. He also loved golf. He is survived by his wife, Lucinda, three sons, four step-children, 10 grandchildren, and a great-granddaughter.

1969

Olufemi Ogundipe, an internist, died Feb. 17, 2019. He was 76. Known as "Dairo" to high school friends and "Femi" to his wife, Dr. Ogundipe was born in Lagos, Nigeria, and attended Haverford College in Pennsylvania. He completed his fellowship in endocrinology at UCLA. A humorous and jovial man, he was a scholar of the arts and sciences who emphasized the importance of academics and

Olufemi Ogundipe'69

education to his family. His three children, who survive him, became a nephrologist, a dentist, and a psychiatrist. He is also survived by his wife, Josephine, and three grandchildren.

1970

Richard G. Carlson, board-certified in pediatrics and internal medicine, died Jan. 31, 2019. He was 74. A native of Connecticut, Dr. Carlson graduated from Trinity College. He worked in New York at Presbyterian and Lincoln hospitals. Later he worked for student health services at Albert Einstein College of Medicine and became director of student health at Columbia. He is survived by his wife, JoAnne, and three children.

Robert M. Schmidt, a physician-scientist and educator in hematology, died March 12, 2019. He was 74. Dr. Schmidt also received degrees from Harvard, Northwestern, and Emory universities. The founding director of the hematology division at the Centers for Disease Control in the early 1970s, he made significant contributions to understanding sickle cell anemia. He was on the faculty of Morehouse School of Medicine and founded the International Health Resource Center at Wilcox Hospital in Hawaii. In 1983, he returned to San Francisco as chair of the health professions program at San Francisco State University. His productive scientific career was cut short by a traumatic brain injury at the age of 52. He was a music lover who played the church organ from a young age. He is survived by two sons and two grandchildren.

1972

Randolph Woodward, an internist with a private practice in Atlanta for 38 years, died May 1, 2019. He was 73. He studied political science at Yale, where he wrestled and played lacrosse, having won a state championship in wrestling in high school. Dr. Woodward completed his internship year in New York City before moving to Atlanta in 1973, where he completed his internal medicine residency and cardiology fellowship, both in the Grady/Emory program. He loved to travel to such far-off places as Pakistan and the Galapagos, and he hiked the Camino de Santiago in Spain. He enjoyed playing tennis and golf. He was an avid reader. He is survived by his wife, Anneke, two children, and five grandchildren.

1973

Eric Michelson, whose research and teaching contributed to cardiovascular therapeutics, died May 29, 2019. He was 71. He completed his residency at the University of Pennsylvania and advanced training in cardiology and cardiac electrophysiology. In 1979, he became chief of clinical research at Lankenau Hospital and Medical Research Center in Pennsylvania. In 1988, he moved to the Likoff Cardiovascular Institute of Hahnemann University Hospital in Philadelphia, where he directed the cardiology division and fellowship. He authored or co-authored more than 150 original papers. After his academic career, he directed pharmaceutical research at Astra Zeneca.

1974

James. A. Quinn, a cardiologist, died Aug. 22, 2019. He was 70. He was a resident of Cedar Grove, New Jersey.

1975

Max Kahn, a pediatrician, died Sept. 12, 2019. He was 72. He served as intern and resident at Bronx Medical Center (Jacobi Hospital) and Albert Einstein College of Medicine and practiced pediatrics at North Central Bronx Hospital before co-founding Pediatric and Adolescent Medicine LLP in 1979 with his partner, Dr. Michael Levi. The practice became New York City's largest, non-hospital-sponsored private pediatric clinic. Dr. Kahn was a clinical instructor at Albert Einstein College of Medicine and Mount Sinai Hospital and School of Medicine and clinical associate professor of medicine at NYU. Sesame Street Parents magazine enlisted him as medical adviser from 1996 to 2001. His pediatric practice expanded to nearby Scarsdale, New York, growing from two physicians to 10. Although "retiring" in 2017, Dr. Kahn continued to see patients and make house calls while pursuing interests including ancient Greek, Talmudic studies, and major league baseball. He is survived by his wife, Kathy, and two children.

1980

Addition: The notice of Warren Grundfest's death (in the Spring/Summer 2019 issue) should have included his sister, Sharon Grundfest-Broniatowski'73, as a survivor.

1982

Jonathan Strongin, who practiced pulmonary and critical care medicine and served as president of the medical staff and chief of pulmonary medicine at Cambridge Health Alliance, died Feb. 9, 2019. He was 67. He trained in internal medicine at Cambridge Hospital and Beth Israel Hospital and completed his pulmonary fellowship at Massachusetts General Hospital. He loved travel, folk music, and his dog. Dr. Strongin also earned a PhD in anthropology at Columbia University. He is survived by his wife, Ellen, and two children.

1986

Cheryl Ann Jay, clinical professor of neurology at UCSF and director of San Francisco General Hospital's neurology clinic, died Feb. 12, 2019. She loved art and was involved with issues of national and international social justice. She was known for her eclectic cookbook collection and extensive travel history.

Cheryl Ann Jay'86

Supporting the future of medicine with a gift that pays you back.

Dr. Augustus John Rush and Dee Rush, Esq. established a charitable gift annuity that will make payments to them for life, with the remainder going to support scholarships at the Vagelos College of Physicians and Surgeons. This is their way of creating opportunities for innovative students to be the best they can be in any area of medicine.

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BRUCE GILBERT

A Welcoming Place…for People and Art

Haven Plaza, a pedestrian oasis on Haven Avenue from 169th Street to Fort Washington Avenue, is filled with tables, chairs, and opportunities for the medical center community and its neighbors to gather formally or informally to enjoy the open space. Art has now joined what can be found there. A neighborhood artist, Emely Perez, has hand-painted illustrations of flora and fauna native to Upper Manhattan on the bollards, the large, white blocks at each end of the plaza. The artist has chosen a species of plant or animal for each bollard, from the more recognizable aster flowers and cardinals to lesser-known species Dutchman's breeches and trilobites. "This art is my attempt to create environmental awareness," says Ms. Perez. "We keep forgetting that Manhattan is unrecognizable from what it used to be. I want people to know about the plants and animals that came before the skyscrapers and everything else."