

# Columbia Medicine

Columbia University College of Physicians & Surgeons

FALL/WINTER 2017



2150

1767

WE DON'T JUST PRACTICE MEDICINE.  
WE CHANGE IT.

2017

## Dear Readers,

This November 2nd, the lighting of the Empire State Building in midtown Manhattan commemorated the day in 1767 that classes began at Columbia's medical school. The Columbia blue lighting symbolized our 250 years of

scientific and medical contributions that confirm what we have been saying during this anniversary year: "We don't just practice medicine. We change it."

One of those scientific contributions—cryo-electron microscopy—was recognized this year by a Nobel Prize in Chemistry. Joachim Frank, professor of biochemistry & molecular biophysics at P&S, shared the prize for his contribution to a discovery that allows us to visualize the structures of large biological molecules at atomic resolution, providing researchers with images that will improve our basic understanding of life's chemistry and biology and, as a result, open the door for new diagnostic and therapeutic advances.

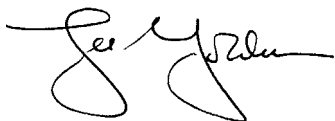
P&S faculty and alumni have received Nobels frequently enough—we count 22 faculty or alumni, including three

current faculty members—that we know our 250th anniversary is not just a celebration of longevity. A school that can boast as many discoveries and firsts as we can—the antibiotic bacitracin, identification of cystic fibrosis, a cure for bacterial meningitis, cardiac catheterization, bone marrow transplantation, a vaccine to eradicate Rh disease, a test to assess newborn health, and multiple genes implicated in disease—is celebrating 250 years of changing medicine.

The November 2nd lighting of the Empire State Building also recognized P&S as the school that granted the first MD degree in the Colonies and has given nearly 21,000 MD degrees since. It honored the oldest medical school in New York state, the 40-year anniversary of the first heart transplant performed here, the 100-year anniversary of the admission of women to P&S, the 100-year anniversary of the hiring of the first woman to a professorial rank, the groundbreaking partnership between P&S and Presbyterian Hospital to create an academic medical center, and so much more.

As we have celebrated our past throughout 2017, we also continue to look to our future, confident that we will build on our legacy by remaining at the very forefront of biomedical research, innovative education, and cutting-edge clinical care.

With best wishes for a happy and healthy 2018.



Lee Goldman, MD, Dean  
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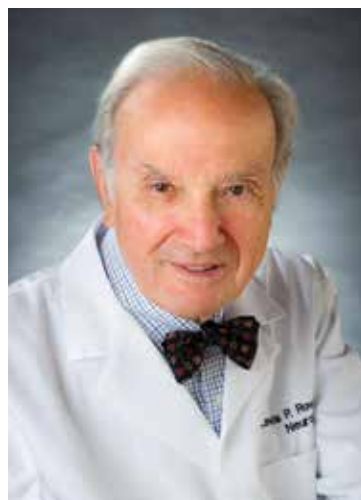
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## Lewis "Bud" Rowland: Influential Clinician, Mentor, Leader

By Martha T. Moore

A giant in the field of neurology—and chair of the P&S neurology department for 25 years—Bud Rowland left a lasting legacy when he died in March. His family and friends explain what made the man, the mentor, the neurologist, and the administrator so unforgettable.

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Try your hand at more questions about the 250 years of medical school history.



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## "We've Changed Medicine"

A timeline of scientific and medical contributions made throughout the 250 years of Columbia's medical school illustrates the relevance of the anniversary tag line, "We Don't Just Practice Medicine. We Change It."

### More History

I was pleased by the inclusion of the Mary Imogene Bassett Hospital in “P&S History, 250 years, Organizational Milestones” (Spring/Summer 2017 *Columbia Medicine*), documenting Bassett as “the first P&S teaching affiliate outside New York City” in 1947.

In fact, the association of Bassett with P&S goes back much further: Dr. Arthur W. Cutler had received his MD from P&S in 1896. As a surgeon at the A.O. Fox Memorial Hospital in Oneonta, N.Y., he was appointed as consulting surgeon to Bassett Hospital when it opened in 1922 (he died of tuberculosis in 1924).

When a transformed Bassett reopened in 1927, its director was James Greenough, MD, picked as a “rising star” of the P&S faculty. Greenough instituted a full-time, salaried model for the physician staff, highly unusual for the day. He was succeeded by a distinguished internist from P&S, George Miner Mackenzie, MD, who, during his 17 years as director, led Bassett’s evolution into a unique rural academic medical center.

An informal affiliation of Bassett Hospital with P&S, beginning in 1931, brought its medical students to Cooperstown for highly popular summer rotations. By 1936, many conversations between Dr. Mackenzie and the P&S dean, Willard C. Rappleye, MD, had strengthened the informal arrangement. In 1947 it was finally changed to the formal affiliation giving Bassett faculty P&S academic rank for teaching its medical students.

### Taking a Position

Though the early 60s were a time of great moral issues in our country—civil rights, Vietnam—as a student at P&S I avoided taking positions. Now retired, I am aware of our country’s new moral issues, including the question of the government’s role in ensuring health care for all its citizens. That one I am taking a position on and wondering why it is not (that I have seen) being addressed in *Columbia Medicine*. Shouldn’t doctors, of all people, be speaking out?

Daniel C. Bryant’65  
Cape Elizabeth, Maine

### P&S Leaders Throughout History

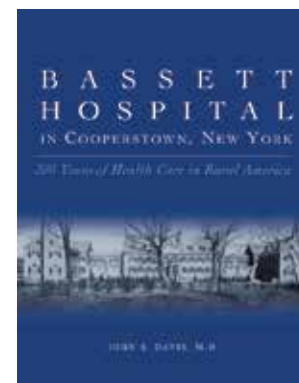
I was quite surprised that the name of Dr. Aura Severinghaus was not included in the table of P&S leaders since 1767 in the *Columbia Medicine* Spring/Summer 2017 edition. It was to Dean Severinghaus that I hopefully turned in my quest for medical school acceptance while I was on a WHO mission in Samoa. His open willingness to consider my application after 10 years away from graduation at Columbia College paved the

The affiliation has since thrived, including a period of years when Bassett senior surgery residents rotated to P&S. In 2003 Bassett’s Henry F.C. Weil’86 formulated the concept of Bassett becoming a medical school campus. This led seven years later to a new medical-school application track, the Columbia-Bassett Program, separate from Columbia’s traditional medical school curriculum, as described in depth

in the Fall 2012 issue of *Columbia Medicine*. The program got underway in 2010 with Bassett’s physician-in-chief emeritus, Walter A. Franck’64, appointed as associate dean at Bassett Healthcare and Dr. Weil appointed as assistant dean. The program continues to flourish.

All of this information is expanded in my 364-page book, “Bassett Hospital in Cooperstown, New York, 200 Years of Health Care in Rural America,” published by Bassett Healthcare Network in 2016 (ISBN: 978-0-578-19086-0).

John S. Davis, MD  
Attending physician and director of medical education emeritus, Bassett Medical Center  
Clinical Professor Emeritus of Medicine, P&S



way for my 50-year career as a developmental pediatrician. Perhaps his many years developing medical education in China opened his heart to my cause. I can do no less now than to hope that his leadership at P&S will be appropriately recognized as we celebrate its 250th anniversary.

Alfred L. Scherzer’63  
Clinical Professor Emeritus of Pediatrics  
Weill Cornell Medical College

**Editor’s Note:** The list Dr. Scherzer refers to documented the medical school deans throughout P&S history. Dr. Severinghaus was associate dean and chair of the admissions committee from 1942 until his retirement in 1963. “In this post he seemed to find his greatest satisfactions, for he was close to almost every medical student, from the student’s first preadmission interview through the four student years to the choice of internship and specialty,” reported his obituary in the New York Times.

### Middle East Higher Learning

The article reporting the excellent work of Fadlo Khuri’89 (Spring/Summer 2017) states, “the American University of Beirut, the oldest and arguably the most respected institution of higher learning in the Middle East...” I have no quibble with the claim to its being the oldest nor do I wish to denigrate Dr. Khuri or his colleagues there. However, if we are going to use evidence-based criteria, then according to the World University Rankings 2017, the most respected institution of higher learning in the Middle East is in fact in Israel.

Robert D. Wagman’81  
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## 2017 Nobel Prize in Chemistry: Joachim Frank, PhD

**F**or weeks, a new dog had been waking up P&S faculty member Joachim Frank early each morning, but during Nobel Week 2017, a ringing telephone was his wakeup call. He was sharing the 2017 Nobel Prize in Chemistry, he was told by the caller. “All I could say over and over again was ‘This is wonderful news.’ I didn’t know anything else to say.”

The attention from news media, Columbia colleagues, and fellow scientists continued throughout that day—Oct. 4—and into the next, when standing ovations, cell phone photos, and requests for autographs greeted him at a festive celebration in the Wu Auditorium in the Vagelos Education Center. An overflow crowd watched and listened as colleagues congratulated Dr. Frank and shared anecdotes about his love of science.

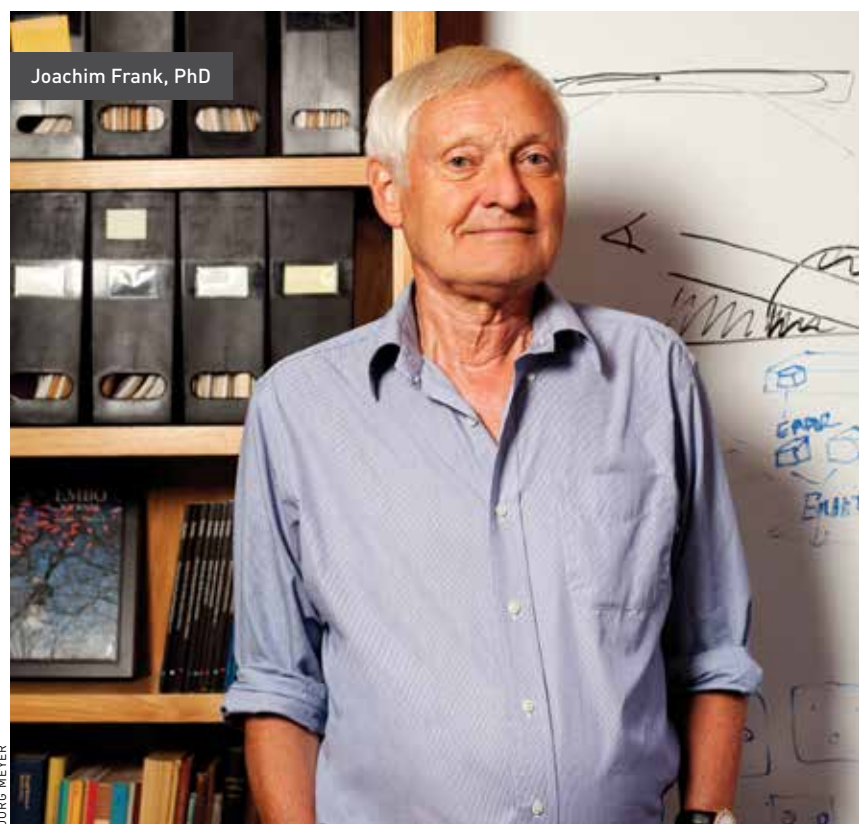
Dr. Frank is professor of biochemistry & molecular biophysics with a primary appointment at P&S and a secondary appointment as professor of biological sciences. He is the third P&S researcher to win the prize since 2000.

Dr. Frank shared the Nobel Prize for helping to pioneer the development of cryo-electron microscopy, a technique used to reveal the structures of large biological molecules at atomic resolution. Using this technique, Dr. Frank has made important discoveries about how ribosomes—the protein-producing “factories” of the cell—function.

Several Columbians spoke at the Oct. 5 celebration and attended a reception that followed. Fellow Nobel Prize winners Richard Axel, MD, University Professor, and Eric Kandel, MD, University Professor and Kavli Professor of Brain Science, praised Dr. Frank’s contributions and gave advice on how to survive the newfound stardom that accompanies a Nobel Prize.

Dr. Frank and the other 2017 Nobel in Chemistry recipients, Richard Henderson of Cambridge University and Jacques Dubochet of the University of Lausanne in Switzerland, developed the field of cryo-electron microscopy, in which powerful electron microscopes are used to more clearly study frozen biomolecules. Electron microscopes can reveal the fuzzy two-dimensional outlines of individual frozen molecules. Dr. Frank’s contribution was in devising methods that turn thousands of such images into a finely detailed three-dimensional image.

Increasing numbers of structural biologists now use cryo-electron microscopy—cryo-EM—to visualize larger and more complex molecules at atomic resolution. Scientists use the 3-D images to study how specific molecules cause human disease in hopes of designing more targeted drug treatments.



Dr. Frank was recruited to P&S in 2008 from the Wadsworth Center in Albany, a New York Department of Health public health laboratory, where he was senior research scientist and lab chief for 33 years and a longtime faculty member in biomedical sciences at the University of Albany. He called his move to Columbia a milestone in his career and he particularly thanked his students. “I wouldn’t be here without the incredible support of the very gifted students I have had the privilege to have with me and be able to train. My research associates have all contributed pieces of this immense puzzle.”

Dr. Frank’s Nobel is the 83rd received by a Columbia faculty member or alumnus, and he is the 22nd P&S faculty member or alumnus to receive the honor.

Two recent awards affirm the importance of Dr. Frank's work. He received the Wiley Prize in Biomedical Sciences this year for innovation in techniques that advance scientific discovery; in 2014 he received the Benjamin Franklin Medal in Life Science from the Franklin Institute in Philadelphia. Both awards recognized his body of research that resulted in this year's Nobel.

Dr. Frank was born in Germany and received a PhD degree in physics from the Technical University of Munich.

Dr. Frank is a member of the National Academy of Sciences and the American Academy of Arts & Sciences and a Fellow of the American Association for the Advancement of Science and of the Biophysical Society. He was a Howard Hughes Medical Institute investigator from 1998 to 2017.



CHARLES MANLEY

Joachim Frank receives a standing ovation at a campus celebration the day after he was named Columbia's newest Nobel Laureate.

## Zika: Not Just Yesterday's News

**Zika virus may have left the headlines**, but research on it has continued at P&S since the first stories broke about the virus and its effects on fetuses.

In 2015, the world learned of birth defects in Brazil apparently caused by a previously obscure pathogen called Zika virus. Several nations issued travel advisories telling pregnant women to avoid visiting the affected area, but airline travel and the ubiquitous tropical mosquito *Aedes aegypti* quickly spread the virus throughout the Americas.

The epidemic captured the interest of many at P&S, with its long history in tropical medicine and strong ties to Latin American communities in New York and abroad. Within months of the first reports linking Zika to microcephaly, P&S researchers and physicians scrambled for grants,

enlisted the aid of a movie star, reached across departmental boundaries, and began Zika virus projects that ranged from the clinical to the molecular.

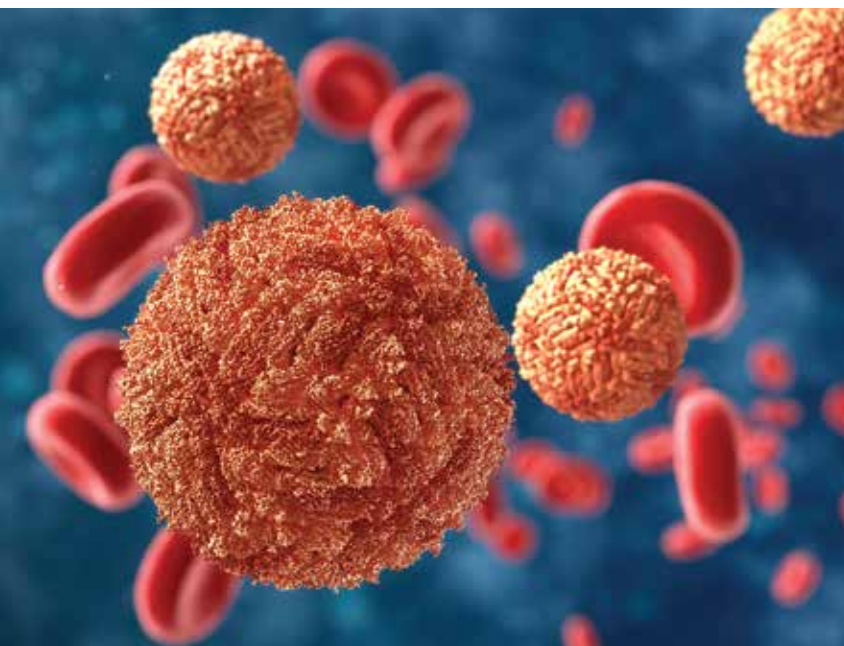
Some of the newly minted Zika researchers had little choice; the virus came to their doorstep. "It was horrifying in a way that I would not otherwise have thought about," says Stephen Nicholas, MD, professor of pediatrics. Dr. Nicholas, who founded and directs the Program for Global and Population Health, has been caring for pregnant women in the Dominican Republic since 1999, and the Zika virus epidemic looked terribly familiar to him.

In 2013, Chikungunya virus, also spread by *Aedes aegypti*, moved across South America and into the Caribbean. In nine months, the virus infected about 70 percent of the population of the Dominican Republic before the epidemic subsided. Reading about the Brazilian Zika virus outbreak and its apparent link to microcephaly, Dr. Nicholas said, "I started seeing the pattern which headed straight to the Caribbean, and I knew what was going to happen." One of his Dominican programs cares for about 700 pregnant teenagers each year.

Like other researchers and physicians, Dr. Nicholas gave himself a crash course in Zika virus. A member of the Flavivirus genus, which also includes West Nile and Dengue viruses, Zika was first discovered in 1947 in Africa. Because human cases seemed to be either asymptomatic or mild, the virus garnered little interest from medical researchers. Public health officials and virologists noted its spread from Africa to Asia, then French Polynesia, but it did not seem as threatening as other vector-borne viruses.

That changed when Zika reached Brazil, and a huge increase in cases of microcephaly followed. A flurry of studies on humans, animal systems, and cell cultures soon revealed that the correlation was not spurious. Zika virus can and does infect and damage brain tissue, and developing fetuses seem particularly susceptible.

But the virus does not always invade the nervous system. Many women have delivered unaffected children after being infected with Zika virus during pregnancy. When another Zika outbreak happened in 2016 in the same region of Brazil, microcephaly rates stayed flat. Outbreaks in other parts of



THINKSTOCK

the Americas have shown similar variation; sometimes Zika virus infection is inconsequential, sometimes it is life-altering. What determines the outcome?

That question fascinates Vincent Racaniello, PhD, the Higgins Professor of Microbiology & Immunology. “Our interest has been viruses that get into the central nervous system, how they get there, what they do there.” Having spent most of his career studying poliovirus and closely related enteroviruses, he quickly pivoted his attention to Zika. Dr. Racaniello was approached by Richard Vallee, PhD, professor of pathology & cell biology, whose lab had long studied microcephaly, and David Doobin, an MD/PhD student working in Dr. Vallee’s lab.

Dr. Vallee uses fetal rat brain slices to study live neuronal behavior during development. This system allowed the group to address not only which cell types were susceptible to Zika infection, but also the consequences for progenitor cell proliferation and migration. Amy Rosenfeld, PhD, a research associate in Dr. Racaniello’s lab, and Dr. Doobin addressed these issues in a joint project. Rat brain slices, the standard for this work, are not susceptible to Zika virus infection, so the team adapted the system to use fetal mouse brains instead. The result is an elegant model for both normal and virally disrupted brain development. “In an uninfected brain slice you see these lovely fibers just like railroad tracks going from the ventricle to the surface of the brain; when you infect the culture with Zika, after two days or so these tracks are now all twisted and tangled,” says Dr. Racaniello. “That disrupts neuronal migration and derails development of the neocortex, mimicking microcephaly.” One important outcome of this work so far is evidence that, despite the very recent discovery of Zika pathogenesis in the brain, East Africa Zika isolates from as early as 1947 also interfere with development in the group’s organotypic culture system.

Most isolates of Zika virus seem equally capable of derailing neural development in brain slices, arguing against the idea that the virus itself somehow changed in Brazil. That suggests some other factor, possibly co-infection with another virus or some combination of environmental or genetic triggers, may drive Zika-associated birth defects.

### Scientists develop a model to study both normal and virally disrupted brain development.

Dr. Racaniello would like to continue studying Zika, but funding has been challenging. “When we started we didn’t have funding for Zika, but we had a grant to study enterovirus D68, so we used that money,” he says, adding that the NIH is flexible about letting researchers explore other areas. The

NIH and other federal agencies have begun grant programs specifically for basic research on Zika, but competition is fierce.

Funding has been no easier in clinical research. As the epidemic spread through his Dominican patient population, Dr. Nicholas scrambled for help to study it. “All the funding, what little there was, was with the CDC, and their emphasis was Puerto Rico,” he says. He resorted to personal fundraising. “I went to every friend I knew who had two pennies to rub together and asked for help.” Contributors included a well-known movie actor with ties to the Dominican Republic and other connections to P&S.

The resulting prospective study in La Romana, Dominican Republic, began enrolling patients in January 2017 to track Zika virus infection, serology, and development in pregnant women and their babies. The goal is to see whether the epidemic in the Dominican Republic—which has infected about 20 percent of the country’s population—affects the rate of birth defects. Fundraising for year two of the program is underway.

— Alan Dove

## P&S Class of 2021

### 152 STUDENTS

- 122 MD students
- 15 MD/PhD students
- 10 Columbia-Bassett students
- 3 PhD-to-MD students
- 2 oral and maxillofacial surgery students pursuing a dual degree

80 women / 71 men / 1 declined to state gender

Age range: 21-34

33 underrepresented minorities (21%)

8,258 total applications through AMCAS

7,311 secondary applications

6,075 applications for traditional MD program (including 1,112 from underrepresented in minorities)

629 applications for the Columbia-Bassett track

537 applications for the MD/PhD program

70 applications for the PhD-to-MD program

1,035 interviews conducted (including 155 with underrepresented minorities, 48 for the Columbia-Bassett track, 94 for the MD/PhD program, 12 for the PhD-to-MD program, and 26 for the oral and maxillofacial surgery program)

53% yield (percentage of accepted students who enroll)

66 colleges represented

33 states represented

6 foreign countries represented (Albania, Canada, China, Great Britain, Korea, and Mexico)



AMELIA PANICO

## Rita Charon to Direct Apgar Academy

**Rita Charon, MD, PhD**, professor of medicine and founder of the Program in Narrative Medicine at Columbia, has been named director of the Virginia Apgar Academy of Medical Educators at P&S. The academy's mission is to promote, reward, and support the teaching of medical students, residents, fellows, and fellow faculty.

The current membership of the academy is about 80 members. The organization hosts workshops on effective teaching and teaching tools and makes three-minute teaching tips available through YouTube videos. An endowment funded by the Vanneck-Bailey Foundation supports one academy member's work each year. This year's recipient, Anne Armstrong-Coben, MD, assistant professor of pediatrics and a P&S advisory dean, will use the funding to provide more resources to the advisory deans, who help medical students throughout their time at P&S.

The academy also has a small-grant program, which awards \$5,000 per faculty member in "startup" funds to conduct research in medical education.

Dr. Charon said she will apply her experience in curriculum development to her task as director of the academy. "Some years ago I received a K07 NIH grant to improve the social, cultural, and interpersonal content of the medical school curriculum. We used the grant for faculty development around these areas. This faculty development seminar contributed in a major way to the creation of the innovative Foundations of Clinical Medicine course, which is taught across all four years of P&S. We also realized that members of K07, as we called the faculty seminar, were becoming course directors and clerkship directors. The group had become a breeding ground for leaders in the P&S curriculum."

P&S is unique among medical schools for the numbers of students and faculty who are accomplished in the humanities and the arts, says Dr. Charon. "Physicians and scientists are not only involved in biological disease and health, we are the ones who come to understand the limits of life, the nature of suffering, and the certainty of mortality. When patients get sick and approach death are the times that all will reach for some comprehension of what their time on Earth has meant. No wonder doctors and scientists tend to be readers, artists, writers, and musicians. We find we need to seek out the sources of insight and meaning around us, perhaps in part to counteract or at least give some solace to the suffering

and loss that we witness every day."

Dr. Charon wants the academy to provide additional resources to help P&S faculty improve as teachers and grow in their own intellectual searches.

"I'd love to be able to offer graduate-level seminars, reading groups, and study circles in things like phenomenology, the philosophy of science, and modern literature to really explore questions about meaning, subjective experience, perceiving the lives of others, and interpreting what patients tell us about themselves. We need ways to come to terms with the uncertainties we live with and the doubts we absorb in giving even basic recommendations to patients. Instead of what is called burnout among clinicians, perhaps we can encourage a kind of deep looking, a deep attention to our practice, what we learn from it about the human condition, and the bottomless opportunity practice gives us to commit acts of kindness. We are in the position to recognize our patients and our students for who they are in very powerful ways. I want to help our physicians and scientists explore the really fundamental dimensions of their work and lives in medicine, and I think gathering together to study, read, write, and pay attention are the ways to get there."

To remain faithful to the academy's enduring mandate to support P&S faculty members' medical education scholarship and research while expanding into new intellectual areas, Dr. Charon is continuing and intensifying the academy's signature programs in faculty development as educators, training in methods of educational research, and support for innovative pedagogic initiatives of P&S faculty. Apgar is committed to becoming a generative and inclusive place for all P&S faculty inspired by their roles as teachers and learners.

The Apgar Academy is named for Virginia Apgar'33, developer of the Apgar Score to assess newborn health, the first woman to be named a full professor at P&S, a gifted musician, and a memorable mentor to many students, residents, and faculty members during her many years on the faculty.



Rita Charon, MD, PhD

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## Columbia Commits Another \$100 Million to Faculty Diversity

Columbia has expanded its commitment to faculty diversity by dedicating another \$100 million—\$50 million from CUMC and \$50 million from the remainder of the university—over the next five years to support recruitment and career development for faculty who traditionally have been underrepresented in higher education.

The medical center and Morningside campuses will each have their own committees to administer grants for faculty retention, dual-career support, and mid-career investment for recently tenured faculty.

Anne Taylor, MD, senior vice president for faculty affairs and career development at CUMC, will administer the program at the medical center. Dennis Mitchell, DDS, vice provost for faculty diversity and inclusion for the University, will administer the program for the undergraduate schools, the Graduate School of Arts and Sciences, and the professional schools.

"Diversity is not just in the numbers, but also about inclusion and success," says Dr. Taylor. "We should be nurturing and training the next group of leaders."



# P&S AT 250

## Deciphering the Columbia Seal, Motto, and More By Joel Chodos '79

This year is the 250th anniversary of the founding of Columbia's medical school in 1767, known since 1814 as the Columbia University College of Physicians and Surgeons—"P&S" for short—but previously known as the medical department of Columbia College. I visited P&S in May for its 2017 commencement as an alumnus and marched with notable alumni as we saw freshly minted MDs being graduated.

The seal of Columbia and other schools became an interest of mine as a student of history, language, and religion. The seal is a cornucopia of classic and religious references that likely escape most casual observers. It draws on Hebrew, Greek, and Latin, and both Hebrew and Christian scriptures as well as Greek mythology. The P&S seal is the Columbia University seal with an added outer circle in English for the name of the medical school instead of Latin for the name of Columbia University.

The Columbia seal was designed by the Rev. Samuel Johnson (not the lexicographer), the first president of Columbia when it was known as King's College and located in Trinity Church in what is now downtown Manhattan and the financial district. Raised in Connecticut and educated in Hebrew at the age of 5, Rev. Johnson attended what is now Yale University, then located in Saybrook, Conn., and was a minister and educator. His vision for the University was an enlightened education with moral structure.

Biblical and religious references in the seal are many. The central figure is a majestic maternal figure surrounded by the young babes she is educating. She holds a book in her right hand with the Greek words "Logia Zonta," which, roughly translated, mean "living oracle or living words," alluding to the words Moses received on Mount Sinai and which he passes down to us, in a likely reference to Acts 7:38: "He was in the assembly in the wilderness, with the angel who spoke to him on Mount Sinai, and with our ancestors; and he received living words to pass on to us."

Although the central maternal figure is not explicitly named "Alma Mater" as is the Low

Library statue and iconic image of Columbia by Daniel Chester French, she clearly is the inspiration for it. *Alma Mater* in Latin means "nourishing mother" and the maternal figure nourishes her children (the young babes that surround her) with her knowledge. The root for *alma* meaning nourishment can be recognized in the English word alimentation for nourishment or alimentary tract as a synonym for the GI tract. The seated female figure is based on Athena, Greek goddess of, among other things, wisdom.

Above the female's head inscribed within a partial gold circle with rays of gold emanating from it is the holy name of G-d in Hebrew consisting of the four Hebrew letters "yud-hay vov-



hay," also known as the tetragrammon. This is G-d's name that is too holy to be spoken so it is often referred to indirectly by other names such as "adonoy," meaning Lord, or "Hashem," meaning "the name." The name of G-d at the top of the seal indicates G-d's preeminent importance. The banner to *Alma Mater's* left has the Hebrew words, which are pronounced "Ori El," meaning "G-d's light."

The scene of the maternal figure nourishing her children alludes to the biblical citation from the New Testament, 1 Peter 2:2-3, listed at the

bottom of the seal. "Like newborn babies crave pure spiritual milk, so that by it you may grow up in your salvation, now that you have tasted that the Lord is good." Again a metaphor of spiritual food—milk—from a mother to her children—students.

The school's motto, "In Lumine Tuo Videbimus Lumen," is a Latin translation of Psalm 36: 9 from the Hebrew book of Psalms (known as *Tehillim* in Hebrew, which means "Praises"). The Psalms were believed to be written by King David. The words of the motto mean "In your light we see the light," a reference to G-d's light. Light figures prominently in school seals and mottos. Yale's motto is "Lux et veritas," meaning light and truth. UC Berkeley's motto is "Fiat Lux," a Latin translation of the Hebrew words "yehi or" meaning "Let there be light" from Genesis 1:3. The Yale seal in its center contains the Hebrew words *Urim* and *Thummim* written in a book in Hebrew. This was roughly translated as light and truth but more literally refers to light and perfection. For those who think Yale co-opted and modified Harvard's "Veritas" motto, Yale's use of *Lux* and *Veritas* actually predates Harvard's use of *Veritas* as its motto.

*Urim* and *Thummim* were actual objects somewhat shrouded in mystery but according to some sources were jeweled stones, 12 in number, on the breast plate of the high priest (Kohen Gadol) of the Holy Temple (the only one who could use the stones) and the patterns of the rays of light emanating from the jewels in response to a question posed by the high priest to the Almighty were used to seek answers to binary questions to determine G-d's will in a matter of great importance, such as whether to go to war. This can be seen as a divine "oracle" of sorts to inquire into G-d's will. *Urim* and *Thummim* are first mentioned in Exodus 28:30 in describing the high priest's (Aaron's) vestments.

Hebrew was a required classic language for all freshman at Yale beginning in 1777. This can be traced back to the Rev. Ezra Stiles, a

president of Yale. While residing in Newport, R.I., before he became president of Yale, Rev. Stiles learned Hebrew from Rabbi Chaim Carigal, who resided at the famed Touro synagogue in Newport for six months. While mandatory Hebrew courses were not popular with all Yale students, Yale's valedictory (valedictorian means "farewell speaker") addresses in 1785 and 1792 were in Hebrew.

The Columbia seal is rich in religious symbolism (Jewish, Christian, and Greek pagan religions) in a way that would never be accepted in today's politically correct climate, but it shows

our heritage and sees knowledge as a gift ultimately bestowed on us under G-d and delivered through a maternal nourishing figure that embodies the university.

The inscription, "For of the most high cometh healing," over the portal to the original Presbyterian Hospital building is taken from the Hebrew book, the "Wisdom of Ben Sirach," better known by its Christian name *Ecclesiasticus*, not to be confused with the book *Ecclesiastes* (*Kohelet* in Hebrew), written sometime around 200 to 175 BCE. It directly refers to physicians. We try as physicians to live

up to that quote each day and it continues to move me when I pass by or through the portal beneath that inspiring inscription written more than 2,000 years ago.

*Joel Chodos, MD, JD, is a 1979 graduate of P&S and a practicing gastroenterologist. He is self-taught in etymology and biblical studies. He was a biochemistry major at Columbia College but his love of history and language that began at Bronx High School of Science was cultivated in his postgraduate GI training. He can be reached at joelchodos@gmail.com.*

## Anniversary Soundtrack: "Take Me Out to the Ballgame" and "Hit the Road, Jack"

*The 250-year anniversary of P&S has been celebrated in big and small ways all year. Two of the leading events were an April outing to a Yankees game and an October bike ride to raise money for cancer research.*

### BATTER UP

On April 28, P&S celebrated its 250th anniversary with the New York Yankees during a nail-biting game against the Baltimore Orioles at Yankee Stadium (the Yankees came from behind to win the game, 14-11). P&S was recognized in honor of its 250th anniversary with an on-field ceremony before the game. Nearly 600 faculty, staff, students, and their family members were randomly chosen to receive free tickets to the game.

The P&S-Yankees connection goes back to the beginnings of the medical center now shared by Columbia University and New York-Presbyterian Hospital. In the early part of the 20th century, the land now occupied by the medical center garden, the chapel, and other facilities was Hilltop Park, the home of the Highlanders, the first American League team in New York. We know them best as the New York Yankees, the name the team took years after leaving Hilltop.

Hilltop Park, located between 165th and 168th Streets and between Broadway and Fort Washington Avenue, was constructed in only six weeks. Left field, facing north to 168th Street, extended 365 feet from home plate; center field, 542 feet; and right field, across from Broadway, 400 feet.

The Highlanders leased its Washington Heights location from the Institute for the Blind, which was located on Fort Washington Avenue at 163rd Street. The team played in Hilltop Park for 10 seasons until its lease expired.

The stadium, officially named New York American League Park, opened April 30, 1903. People called it Hilltop because the field was built on one of the highest elevations in the city. A roofed single-deck wooden grandstand stood along Fort Washington Avenue. Next to it by the foul lines were the open bleachers that were covered in 1911. Along left field at 168th Street were fences about 20 feet high. The center field bleachers,

erected in 1912, were on the corner of 168th Street and Broadway. The entrance was at Broadway and 166th Street, with a sign on the east wall that read American League Park.

Ironically, the Highlanders, officially named the New York Americans, began as the Baltimore Orioles—the team the Yankees defeated at the anniversary celebration in 2017.

Depending on which baseball historian you believe, the team's nickname was a nod to either the high elevation of Hilltop Park or the Scottish Gordon Highlanders regiment.

In 1912, the Highlanders moved to the Polo Grounds, where they shared the stadium with the Giants until 1923 while Yankee Stadium was being built. Hilltop was demolished in 1914 and replaced by the one-story tabernacle of Billy Sunday, a baseball player turned evangelist. Following the demolition of the tabernacle, groundbreaking ceremonies for Columbia-Presbyterian Medical Center took place in 1925.

In 1993, Highlanders pitcher Chet Hoff, then 102 years old, returned to his old stadium grounds to dedicate a bronze plaque from the New York Yankees. The plaque, which was placed in the medical center garden in the approximate spot where home base was located, was dedicated to the medical center and the community of Washington Heights. At the dedication, Mr. Hoff recalled the day 82 years ago that month when he struck out Ty Cobb on three pitches. Mr. Hoff died five years after the dedication at age 107. The plaque was removed during the medical center garden's recent renovations. A rededication ceremony to return the plaque to the garden is planned for next spring.

### PUT THE PEDAL TO THE METAL

Velocity, an Oct. 7 anniversary event, raised \$1.4 million to support cancer research at Columbia's Herbert Irving Comprehensive Cancer Center. The funds were raised through the efforts of 467 riders plus corporate sponsors, volunteers, and friends of the university. The ride is planned as an annual event.



Barbara Trencher, a physical therapy doctoral student and cancer survivor, and Gary Schwartz, MD, led the pack from the Velocity ride's start 62.5 miles from P&S.

The ride began in Pomona, N.Y., and continued south along the scenic Hudson Valley. Participants rode a range of routes that covered distances of 10, 25, 45, or 62.5 miles (100 kilometers). At each start area, a welcome ceremony led by a Columbia faculty or staff member and a cancer survivor rallied riders.

“I trained to be a physician to cure cancer, but what I’m really passionate about is curing patients and their families,” said Gary Schwartz, MD, professor of medicine, chief of the division of hematology-oncology, and associate director of the cancer center, at the ceremony held at the 62.5-mile start. “And we’re giving our people the flexibility to match their passion, creativity, and artistry to make great discoveries and follow their dreams. I know that my dream is to cure cancer and I need a team with imagination to do it. We’re leading in precision medicine—sequencing DNA and finding drugs that will slow or stop specific cancers—and immunotherapy.”

The riders had different starting points, but all cyclists crossed the George Washington Bridge together to reach the finish line at the medical center for a post-ride celebration. The festivities included a concert by the Spin Doctors.

Fundraising webpages for Velocity participants will be open until Dec. 31 at [www.velocityride.org](http://www.velocityride.org). Bikers also can sign up at the Velocity site for the 2018 ride.

## The Rockefeller Connection in the Medical Center’s Beginnings

By Henry Weil’86 and Rachel MacLean’20

In 1928, P&S and Presbyterian Hospital opened the Columbia-Presbyterian Medical Center at 168th Street, catalyzing the academic medical center movement, which revolutionized medical education and patient care across the United States.

However, in 1917, the proposed alliance between P&S and Presbyterian Hospital was on the brink of dissolution. The original agreement to unify the two institutions, brokered in 1911 by Edward Harkness (Presbyterian Hospital trustee) and Samuel Lambert (P&S dean), was in pieces. Columbia had been unable to uphold its end of a financial agreement, and tension brewing between the two institutions had spilled into the New York newspapers. Quick action was needed to save the partnership.

An unpublished letter, shown on the next page, tells of a meeting between Edward Harkness and John D. Rockefeller Jr. in the midst of these troubled 1917 P&S-Presbyterian Hospital negotiations. Rockefeller, a prominent philanthropist with a strong public health focus, was aggressively working to modernize medical education across the United States. So, too, was the recipient of the letter, Abraham Flexner, who authored the famous 1910 report that evaluated North American medical schools; Flexner worked for Rockefeller in supporting medical education reform. Their vision, which Flexner had studied in Europe, was to promote medical schools with full-time faculty who would advance health care by doing research and training clinicians.

Harkness, too, was dedicated to advancing medical education, particularly at P&S. Around 1910, he began seeking a permanent hospital partner for P&S. He first courted Roosevelt Hospital, offering a new surgical pavilion in exchange for P&S student education. When that proposal failed, he became a supporter of the P&S-Presbyterian union. However,

this letter captures a moment in which he felt he was “groping in the dark,” perhaps puzzling over how to rescue the ailing alliance between hospital and medical school. He had bought the 168th Street property in secret, in hopes of donating it to the medical center, but progress had stalled. Accepting help from Rockefeller and Flexner—both seasoned and highly active medical education reformists—was logical, and Harkness shared their vision of revolutionizing health care delivery by co-locating education, research, and patient care.

In this letter, Rockefeller recounts his offer to support Harkness in his vision for restructuring medical education in New York. Eventually, this pledge would provide the financial underpinning of the 168th Street medical center, alongside Harkness’ own contribution. The negotiations that followed were not simple, however; as is detailed in that letter, Rockefeller stipulated that Harkness had his support, but only so long as the plan for P&S had “full-time features.” This was typical of the quid pro quo approach taken by Rockefeller and Flexner: They would donate buildings (co-locating medical schools and hospitals) and in return, medical schools would hire full-time, salaried physician faculties. Rockefeller and Flexner already had succeeded in implementing full-time plans at such schools as Johns Hopkins, Washington University, and the University of Chicago. Nonetheless, the Rockefeller/Flexner approach had been slow to recruit additional medical schools, and they saw P&S as an important opportunity.

By building a state-of-the-art academic medical center in a major American city for the first time, Columbia played an important role in the continued spread of the academic medical center movement, which facilitated progress in American health care throughout the 20th century. The P&S-Presbyterian Hospital alliance ultimately proceeded without the full-time plan

through a compromise that ushered in the concept of “geographic” full time, under which faculty physicians were permitted to have part-time private practices but not when teaching at an academic medical center. In the face of Columbia physicians’ opposition to the full-time requirement, Rockefeller had decided to cut his losses; improving medical education in New York City was too important to delay. In 1921, Rockefeller gave \$1 million to fund the new 168th Street medical center. Though a sizable sum, Rockefeller’s contribution was surpassed by Harkness, who donated \$1.3 million and the Washington Heights property to the medical center.

These efforts by some of the most prominent figures in medical education history brought P&S and Presbyterian together at last. In the process, it created the widely adopted template for academic medical centers in the United States. Two P&S deans, Samuel Lambert and William Darrach, presided over the negotiations. Countless hospital and university board members weighed in. And Rockefeller made the crucial choice to defer to P&S physicians on amending the full-time model when progress seemed hopeless.

Through it all, Harkness was the common denominator. His steadfast support for the cause highlighted his quiet dedication to improving

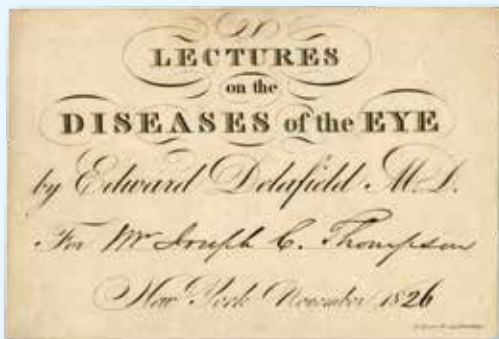
the future of medical education in New York City. Though his father Stephen’s name is on the Harkness Pavilion at what is now the Columbia University Medical Center, P&S—and U.S. health care—might not be what it is today without Edward Harkness.



*The idea for this piece arose when the authors found the letter at the Rockefeller Archive Center in Sleepy Hollow, N.Y. Intrigued by the letter’s relevance to the history of P&S and the medical center, they reviewed other records, including those in the Health Sciences Archives, that revealed the dedication of Harkness, Rockefeller, Flexner, and many others to advancing medical education. Henry Weil, MD, is director of the Columbia-Bassett medical program. Rachel MacLean is a Columbia-Bassett medical student. The authors gratefully acknowledge Tom Rosenbaum for his knowledge, patience, and assistance in researching this piece.*

## Early Ophthalmological Instruction in New York By Stephen Novak

A small donation received this summer documents what may be the earliest known ophthalmological instruction in New York—and perhaps the nation. The gift was of seven admission tickets for P&S classes. The tickets belonged to Joseph C. Thompson of Monmouth County in New Jersey. Mr. Thompson attended P&S during the 1826-27 and 1827-28 academic years, but he never received a degree from the school.



As at most antebellum U.S. medical schools, P&S students took courses in any order they cared to and in any topic. Mr. Thompson’s admission tickets were “proof of purchase” showing that he had paid the professor whose class he was attend-

ing. Not particularly rare on the market, admission tickets remain generally affordable medical collectibles. Archives & Special Collections, as with most medical history collections, has a good number of them, but holdings for the 1820s were thin so we were happy to receive these.

To our surprise, most of the tickets received this year were for professors and courses we had not seen before. Two in particular caught our attention: one for admission to “lectures of the diseases of the eye” taught by Edward Delafield and another admitting Mr. Thompson as a “pupil” at the New York Eye Infirmary. Dr. Delafield, an 1816 P&S graduate, along with his medical school classmate, John Kearny Rodgers, had founded the New York Eye Infirmary in 1820, making it not only the oldest eye hospital in the United States but the oldest specialty hospital of any kind in this country. It still exists as the New York Eye and Ear Infirmary of Mount Sinai Medical Center.

That Delafield was giving ophthalmological lectures in 1826 is not a complete surprise: John Dalton in his 1887 history of P&S says “a special course of lectures on the diseases of the eye was given by Dr. Delafield” at about this time. However, nothing else in the P&S archives verifies this. The college’s annual catalogs for this era include

lists of students, professors, and trustees and very little else. While Delafield is listed among the professors, his title is professor of obstetrics and gynecology, not ophthalmology. It is not until 1837 that the catalog mentions the New York Eye Infirmary as being open to P&S students and it is not until the 1849/50 catalog that the implication is made that instruction is offered there. The college’s first professor of ophthalmology, Cornelius R. Agnew, was not appointed until 1867.

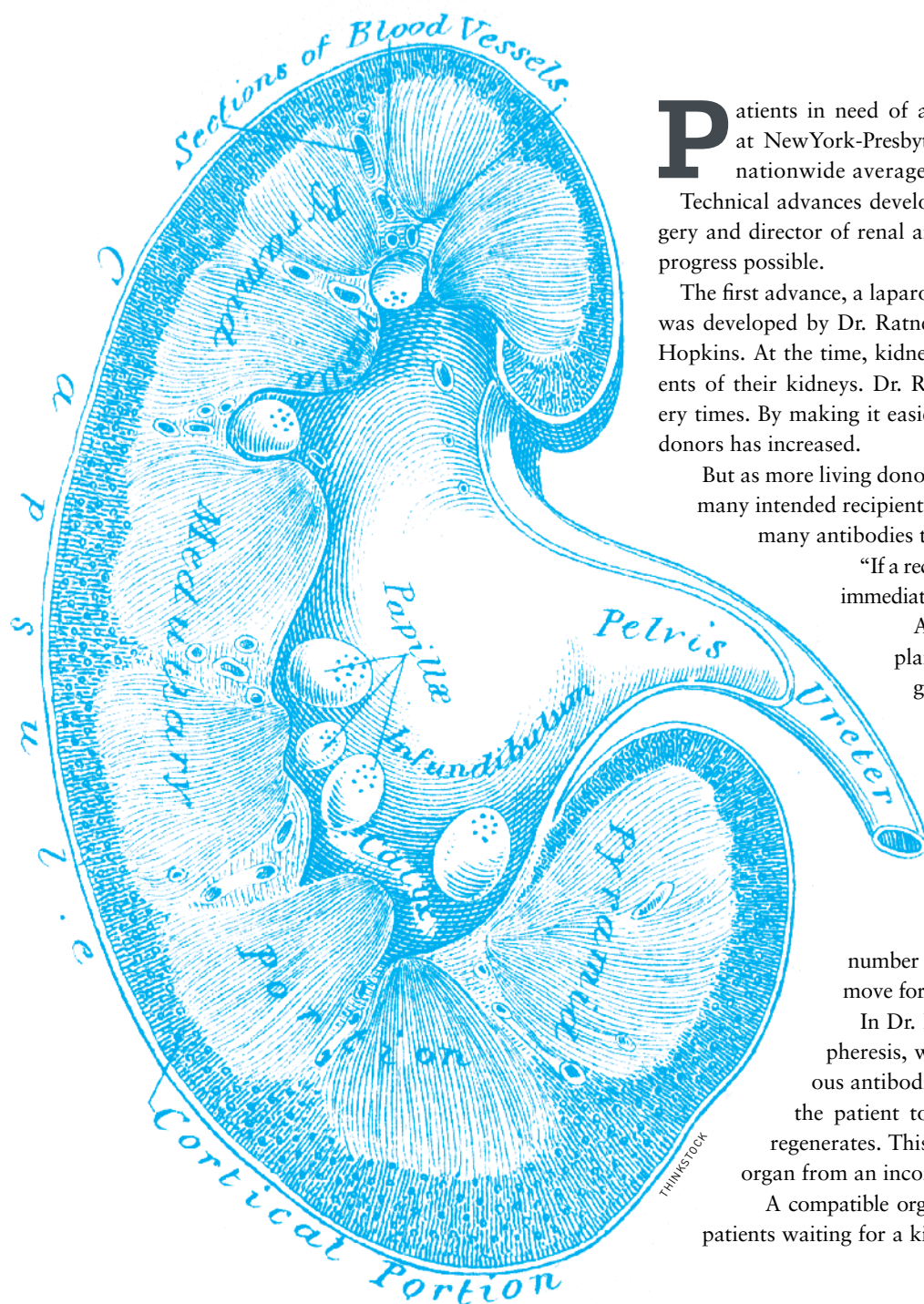
So clearly Dalton was correct, and we now have additional, unassailable evidence that Delafield was giving ophthalmology lectures to P&S students as early as 1826, even if these were, as Dalton notes, considered “special” and not a regular part of the curriculum. Since the New York Eye Infirmary was the city’s only eye hospital in the 1820s, we can probably safely say that these were the earliest lectures on the diseases of eye given in New York. But can they also be the earliest given in the United States? More research will have to be done before that claim can be made, but our small, elegantly engraved tickets certainly give P&S a lead in this contest.

*Reprinted from the Archives & Special Collections blog, <http://blogs.cuit.columbia.edu/hslarch/>*

# Clinical advances

## Successful Outcomes Increase Kidney Transplants

By Jeff Ballinger



**P**atients in need of a kidney transplant are not only getting them faster at New York-Presbyterian/Columbia, they also are living longer than the nationwide average for transplant recipients.

Technical advances developed by surgeon Lloyd Ratner, MD, professor of surgery and director of renal and pancreatic transplantation, have helped make this progress possible.

The first advance, a laparoscopic, minimally invasive surgery for kidney donors, was developed by Dr. Ratner and a colleague in 1995 while they were at Johns Hopkins. At the time, kidney donors faced a more arduous recovery than recipients of their kidneys. Dr. Ratner's procedure significantly reduced donor recovery times. By making it easier for people to donate kidneys, the number of living donors has increased.

But as more living donors came forward, Dr. Ratner and his team noticed that many intended recipients were incompatible with the donor and produced too many antibodies that were ready to attack the donated organ.

"If a recipient has enough of these antibodies, the recipient could immediately and irreversibly reject the kidney," Dr. Ratner says.

At that time, two treatments performed before transplantation—plasmapheresis and intravenous immune globulin (IVIg)—were used to try to reduce the number of antibodies in the blood and diminish the chance of rejection. But the success rate of each procedure was only about 30 percent to 40 percent.

In 1998, Dr. Ratner had an idea to combine the two treatments and he devised a protocol that has now become standard practice in the field. "I put the two of them together, and the combination was almost 100 percent successful in reducing the number of antibodies to a sufficiently low level that we could move forward with transplantation," he says.

In Dr. Ratner's protocol, the patient first undergoes plasmapheresis, which filters the patient's blood to remove the dangerous antibodies. Then, IVIg treatment infuses other antibodies into the patient to provide some protection until the immune system regenerates. This desensitization process allows a patient to receive an organ from an incompatible donor.

A compatible organ will always be preferred, but a large percentage of patients waiting for a kidney produce so many antibodies that they will likely

never find a match. For these patients, desensitization followed by transplantation with an incompatible kidney improves survival compared to remaining on the wait list, as demonstrated by a recent clinical trial conducted at 22 centers, including Columbia.

Although a 2016 newspaper story described desensitization as a new procedure, Dr. Ratner has been performing it at Columbia since he arrived in 2004. The technique has enabled more than 200 Columbia patients, who otherwise would have remained on the waiting list, to receive kidneys.

Kidney “swaps” also have increased the number of successful transplants in recent years. During a kidney swap, multiple donor and recipient pairs are identified, and donated organs are transplanted into recipients according to compatibility. The strategy allows patients who have a willing but incompatible donor to receive an organ that is a bet-

ter match than that of their own donor. And, a single donor may be able to help multiple individuals through kidney swaps. Dr. Ratner helped pioneer kidney swaps in 2001 and performed the first kidney swap in New York in 2004.

Despite these improvements, wait times for kidney transplants have continued to rise nationwide. Diabetes, largely driven by the obesity epidemic, is a main reason for the increased need, Dr. Ratner says. “This is a bigger issue than the improvements in transplant techniques. More people are going on the list than the number who get off through transplantation. However, it is important to note that donating a kidney is safer and less intrusive than ever before.”

*The transplant team can be reached at 212-305-6469.*

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## Multidisciplinary Center for Facial, Aesthetic, and Reconstructive Surgery

Columbia doctors from three specialties—otolaryngology, dermatology, and ophthalmology—have joined together at the Center for Facial, Aesthetic, and Reconstructive Surgery to offer a variety of synergistic services for the first time at a single ColumbiaDoctors location.

The new center at 880 Third Avenue in Midtown East provides patients with a unique interdisciplinary approach.

“This type of collaboration is the wave of the future,” says Faramarz Samie, MD, PhD, vice chair of the Department of Dermatology and associate professor of dermatology. Dr. Samie, a specialist in Mohs micrographic surgery, shares patients with the other specialties.

“For a lot of patients with skin cancer on the eyelids, for example, we need to consult with specialists in ophthalmology,” he says.

Having specialists in all three disciplines in one location is unusual, says Bryan Winn, MD, associate professor of ophthalmology at CUMC, but “it makes the multidisciplinary approach very easy and discussions and clinical decisions can be made in real time.”

As an oculoplastic surgeon, Dr. Winn often works with an otolaryngologist to treat the same patient. “We frequently work together on the surgical reconstruction of patients who have complex injuries spanning the face, nose, eyelids, and orbit,” Dr. Winn says. “Having a multidisciplinary team work together in these cases greatly benefits the patient and allows us to achieve overall better outcomes.”

Other Columbia physicians in otolaryngology, ophthalmology, and dermatology have moved into the new Third Avenue office, joining the Columbia University Laser Vision Center and the Voice and Swallowing Institute, which caters to professional singers and others with vocal dysfunction.

Services for patients have expanded at Third Avenue, including an increase in Mohs surgery availability to five days a week and the relaunch of cosmetic and laser services. Most of the services offered by ColumbiaDoctors Dermatology are available for same-day or next-day appointments.

—Jeff Ballinger

*To schedule an appointment, call the Third Avenue office at 212-305-9535.*



JOHN ABBOTT

## Nation's First Neurocardiac Clinic Provides Comprehensive Care

Due to advancements in critical care during the past decade, people who experience cardiac arrest are treated faster and more successfully today than ever before, resulting in a marked increase in the survival rate.

Cardiac arrest is not solely a cardiac disease. As many as half of all cardiac arrest survivors suffer from cognitive and neurological deficits. Once circulation is restored, survivors face many challenges, including neurological dysfunction that prevents them from recovering their previous physical and mental status.

Development of psychiatric disorders is also highly prevalent in these patients: Two-thirds experience anxiety or depression, a quarter develop post-traumatic stress disorder, and nearly all complain of severe fatigue and low life satisfaction. A quarter develop seizures and/or stroke and need continual neurological care. Only half of them ever return to work.

The Department of Neurology's new neurocardiac program, the first of its kind in the country, provides survivors a "one-stop shop" that offers comprehensive, well-coordinated care to help survivors reach their full potential.

"Multiple studies have shown that early diagnosis and early appropriate systematic interventions result in better long-term outcomes among survivors," says the program's founder, Sachin Agarwal, MD, assistant professor of neurology.

Many of the clinic's patients are first screened when they are admitted to the NYP/CUMC intensive care units. Before discharge, each patient is given a detailed neuropsychological test and screened for depression, anxiety, and PTSD. Patients also are assessed on their ability to perform daily living activities. They are then systematically followed and managed in the neurocardiac program to promptly identify and address any neurocognitive, neurological, or psychosocial problems to minimize disability and help patients re-integrate into the community.

The neurocardiac team is comprised of specialists in neurocritical care (Dr. Agarwal), neuropsychiatry (Deepti Anbarasan, MD), neuropsychology (Alex Presciutti and Marykathryn Pavol, PhD), neurorehabilitation (Glen Gillen, EdD, and Janet P. Falk-Kessler, EdD), and pastoral care to provide coping strategies to patients and their caregivers (Linda Golding).

Appointments are structured to ease the burden of seeing multiple specialists: Instead of moving from office to office, patients at the neurocardiac clinic remain in one room and specialists come to them. Together, the clinic's specialists create an individualized care plan tailored to each patient's unique needs. Special attention is paid to occupational therapy, which focuses on a patient's ability to function at home and cognitive capabilities required to function in society.

"The process of recovery is dynamic and may continue for months following the arrest," says Dr. Agarwal. "We believe that these interventions can lead to a fast return to work, address psychiatric distress, improve overall quality of life, and decrease cardiovascular mortality for patients that have mild to moderate cerebral dysfunction."

The program also runs support groups for patients and their caregivers to share experiences and advice.

—Susan Conova

*The clinic can be reached at 212-305-4234*

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## Unique ICU Offers Specialized Care for Newborns with Heart Disease

When the Vivian and Seymour Milstein Family Infant Cardiac Unit opened at NewYork-Presbyterian's Morgan Stanley Children's Hospital in September, it became the first neonatal cardiac intensive care unit in the United States.

The idea for the 17-bed unit arose five years ago, says Richard Polin, MD, director of neonatology and the William T. Speck Professor of Pediatrics. Dr. Polin hired Ganga Krishnamurthy, MD, a graduate of the neonatal perinatal medicine program at CUMC and now the Garrett Isaac Neubauer Associate Professor of Pediatrics at CUMC, as medical director of the new unit. Dr. Krishnamurthy also trained in cardiac intensive care at Boston Children's Hospital.

"We saw the need for a new unit as the numbers of infants with congenital heart disease increased," Dr. Polin says. Neonates with heart disease are at a higher risk of mortality after cardiac surgery than children with most other surgical problems.

The new unit—with five single beds, five double-bed pods, and two isolation rooms—is devoted entirely to infants with complex heart disease and is staffed with individuals who have special expertise in cardiac physiology and intensive care.

"It's not just the doctors who staff the unit," Dr. Polin says. "It's also nurses and nurse practitioners who have expertise in newborn infants with cardiac disease."

Before the unit opened, babies born with congenital heart disease were admitted to the general neonatal intensive care unit at NYP/CUMC. In most other hospitals, a critically ill infant can be placed right next to an adult in the ICU, which clearly is not ideal.

"This newly dedicated unit fosters an advanced, multidisciplinary approach to providing specialized neonatal cardiac intensive care," says Dr. Krishnamurthy. "It is an incredible advance for infants with severe congenital heart disease."

The new unit was made possible by a \$5 million gift from the grandchildren of Vivian Milstein and the late Seymour Milstein. "We came together to continue our family's legacy of supporting the hospital," says Toby Milstein. "It means so much to us to honor our grandparents by helping to provide the very best heart care to the next generation of patients."

—Jeff Ballinger



# Lewis “Bud” Rowland:

Influential Clinician,  
Mentor, Leader

By Martha T. Moore





What Lewis “Bud” Rowland, MD, achieved in neurology would have been impressive for anyone, but it was even more remarkable for a man whose career was almost destroyed by politics.

For 25 years, Dr. Rowland chaired Columbia’s Department of Neurology and maintained it as a leader in the field. He founded two neurological disease centers at Columbia, led the American Neurological Association and the American Academy of Neurology, raised nearly \$10 million for Parkinson’s research, edited the field’s leading journal for a decade, and, among his other books, produced six editions of the standard textbook for neurology.

He was hard-working and far-seeing. Dr. Rowland, who died in March at the age of 91, long ago predicted that genetics would come to dominate research into Alzheimer’s and other neurological diseases and advocated for what became translational neuroscience with his founding of Columbia’s centers for amyotrophic lateral sclerosis and muscular dystrophy.

“He was so prescient about a lot of these things,” says Richard Mayeux, MD, current chair of the Department of Neurology. As a result, Dr. Rowland was key in moving neurology from a field limited to observation and diagnosis to a specialty that includes treatment. Thanks to Dr. Rowland’s legacy, “the scientific basis of the department today is grounded in genetics and genomics and trying to treat these otherwise untreatable disorders,” adds Dr. Mayeux.

“His influence on neurology was enormous,” says Timothy Pedley, MD, who succeeded Dr. Rowland as chair of the department in 1998. “I would say he was one of the major figures in neurology in the past 50 years.”

But Dr. Rowland’s illustrious career was almost over before it started because of the McCarthy era blacklists.

### Quietly Refusing to Name Names

In 1953, newly married and about to be a father, Dr. Rowland went to work at the National Institute of Neurological Disease and Blindness, a forerunner of the National Institute of Neurological Disorders and Stroke. Already aware of the

hunt for alleged Communist sympathizers in government in McCarthyist Washington, Dr. Rowland and his wife, Esther, discovered the FBI was asking their friends questions. Soon, Dr. Rowland found himself summoned to the security office of the Department of Health, Education and Welfare, which oversaw the National Institutes of Health.

Both Bud and Esther Rowland were politically progressive. They had met at a fundraiser for a doctors’ group espousing national health care. As a medical student at Yale, Dr. Rowland was president of the Association of Interns and Medical Students, a medical students’ organization committed to ending racism in health care and establishing a national health care system. AIMS, founded in 1941 and with a membership of about 3,000, had been branded a Communist front by the House Un-American Activities Committee.

When he arrived at HEW, security officers permitted Dr. Rowland to call his wife but not a lawyer.

“I told Esther that I was being interrogated by the political police and I said I wasn’t going to talk to them,” Dr. Rowland recalled in a 2012 oral history. “It was like a scene out of Kafka.”

“Remember Einstein,” his wife told him in the phone call. The physicist had recently spoken out about the fear of communism imperiling freedom of research and teaching.

Dr. Rowland’s suspicious activities included being an usher at a Paul Robeson rally, attending a Marxist discussion group at Yale, and not disclosing his membership in the medical students’ group. He was suspected of subscribing to the leftist publications *In Fact* (he did) and the *Daily Worker* (he did not) and he refused to answer FBI questions about other alleged leftists. He was labeled by unnamed accusers “a Communist sympathizer.”

“How does one answer such a charge?” Esther Rowland wrote in her 2015 memoir, “Fellow Traveler.”

Dr. Rowland answered it partly with this statement to HEW: “The obligation of good citizens in a democratic society is to eliminate discrimination and to fight for social justice. This is a demonstration of loyalty, not disloyalty, to the United States.”

# Lewis, “Bud,” Rowland

Five months after the interview, Dr. Rowland was fired due to “the interests of national security.” His dismissal from the U.S. Public Health Service was listed as “conditions other than honorable.”

His principled stand cost him more than his job: The Rowlands were living in a government-owned apartment at the NIH with their year-old son; they were given two weeks to clear out. The family, expecting a second child, landed on the sofa at Esther’s mother’s in New York. A month later, a job offer at the University of Pennsylvania was withdrawn due to objections from the trustees.

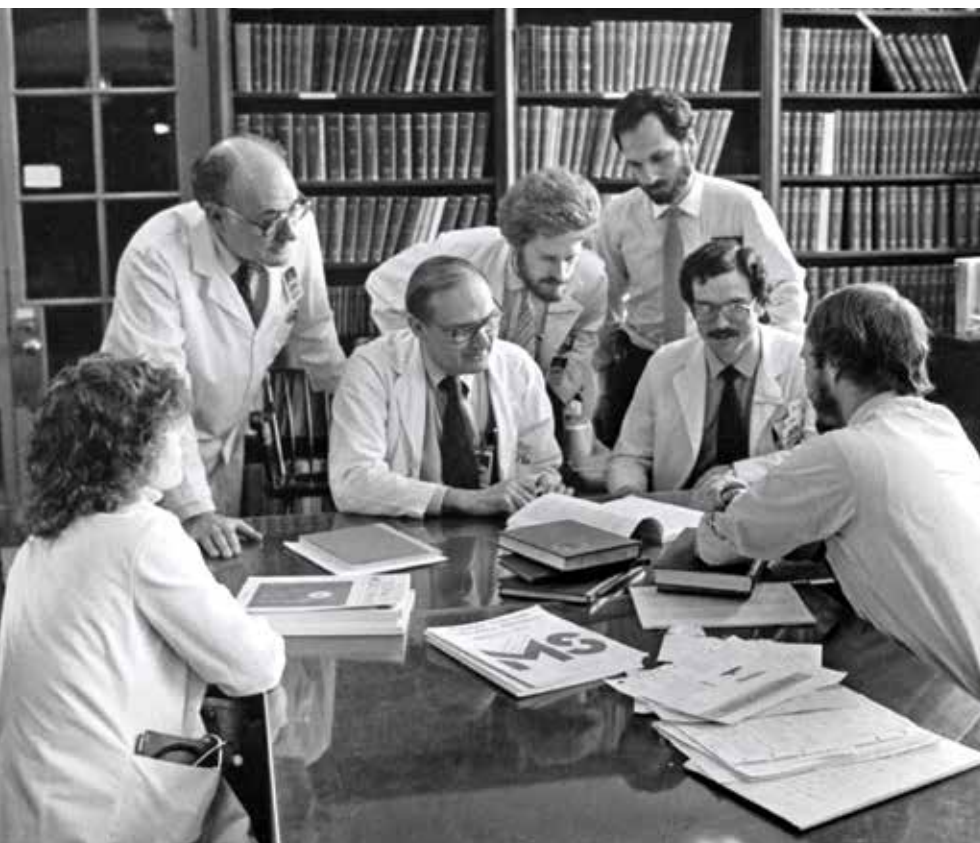
“I thought I would never work again,” Dr. Rowland recalled.

But, as Esther put it, “There were many courageous people who...quietly condemned (McCarthyism) in their own acts of defiance.” With help from H. Houston Merritt, under whom he had trained at Columbia, Dr. Rowland landed a position at Montefiore Hospital, then affiliated with Columbia. All but six years of the rest of his career—when he chaired neurology at Penn—were spent at Columbia.

## Wielding the Red Pen

The man who once thought he might never find work became famous for his productivity. He wrote nearly 500 published articles, two books on motor neuron diseases, and books on neurologic and psychotherapeutic drugs. He edited six editions of “Merritt’s Neurology,” one of the standard texts of

Dr. Rowland,  
seated at center, at  
a 1982 meeting



the field. He had the generosity of spirit to write a history of the very institution that had blacklisted him; “NINDS at 50” appeared in 2003.

“It was thrilling to see my dad’s curiosity about science and the world around him. Science was an endless mystery, a team sport, and a way to do good in the world,” Andy Rowland, Dr. Rowland’s oldest son, recalled at his memorial service.

Grant proposals written by colleagues and friends went under his red pen. Dr. Mayeux recalled once giving Dr. Rowland a program project grant so hefty “it looked like the New York telephone book.” A few days later he was summoned to Dr. Rowland’s apartment and found his 500-page grant proposal in stacks on the living room floor, edited and reorganized. “And it read better,” Dr. Mayeux says.

“He had a sense of timing, when was it right to be your friend, when was it right to be your colleague, when was it right to be your teacher,” says Dr. Mayeux, who trained under Dr. Rowland. “That was what was unique about him.”

Dr. Rowland edited the journal *Neurology* from 1977 to 1986 and *Neurology Today* from 2000 to 2009. “He rewrote every paper that appeared in that journal. Even when (papers) weren’t accepted he would edit them,” Dr. Pedley says. “He told me once, ‘Maybe I’ve gone too far with this. I found myself editing a personal letter from my cousin.’”

That might have been a joke; he was full of jokes and sayings that became known as “Rowlandisms.” He had an endless supply of wisecracks, a red pen and notecards in his shirt pocket, a weakness for Mallomars, and a penchant for catnapping during meetings.

“He had that legendary ability to fall asleep during a conference, usually grand rounds, and then he would wake up when the questions began and he would ask the most important question, which was based on what the speaker had said,” says Howard Hurtig, MD, a friend and colleague during Dr. Rowland’s chairmanship of the neurology department at the University of Pennsylvania. “He was just playing possum.”

Andy, his oldest son, recalls walking through the medical center with his father and watching him pick up bits of paper and trash wherever he spotted them. “He said it was everyone’s job to keep the hospital clean,” recalled the son. “He lived that commitment to public service in large and small ways, whether it was advocating for underserved patient populations or picking up trash.”

## Tending Tropical Plants

For a man with a high professional profile, Dr. Rowland knew how to get out of the way, those who knew him say. As a department chair, he worked to make sure the neurologists could pursue what excited them, not him. As a third-year resident, Stanley Fahn, MD, borrowed Dr. Rowland’s lab to work on a project, only to find himself invited to work on a Rowland project and end up co-authoring a

paper. It was the start of a long association: Dr. Fahn went with Dr. Rowland to Penn and then returned with him to Columbia in 1973.

“Most places you have to do what the chairman wants,” says Dr. Fahn. “Bud Rowland was never that way. He was an encourager, he wanted people to do what they wanted to do.”

Dr. Rowland treated Columbia’s neurologists like tropical plants, jokes Dr. Mayeux. “He’d give us water and light and get out of the way.”

Or, as Dr. Rowland himself put it in a 2012 interview: “I think the most important thing is to pick good people and then leave them alone. When I’m an editor I try to help people say what they want to say. When I’m involved with somebody’s training, I want to help them do what they want to do.”

### Living his Values

Dr. Rowland always rooted for the underdog, whether in sports or in life. Perhaps it was because he knew what it was like to be in the minority. Born in Brooklyn in 1925, he was a Dodgers fan, a high school basketball player, and an aspiring doctor from the moment he set foot in school. As he completed high school, his parents changed the family’s name from Rosenthal to Rowland so their son could avoid restrictions on the number of Jews admitted to Yale. When he returned to Columbia in 1973, he was the first Jewish

**“He was a humanist. He genuinely liked people. There was no such thing as a big shot and a little shot. There were just people, and he helped everybody equally.”**

clinical chair at the university since 1939. Dr. Rowland explored the history of anti-Semitism in academic neurology in his 2009 book on Dr. Tracy Putnam and Dr. Merritt, the two neurologists (and successive department chairs) who in 1938 discovered Dilantin to treat epilepsy. Dr. Rowland documented efforts by Presbyterian Hospital to get Putnam to fire Jewish neurologists on his staff. (Putnam did not, but staffed two neurological services, one with Jewish doctors and one with what Dr. Rowland termed “society” doctors.)

Warm and joking, Dr. Rowland was nonetheless strict in his insistence on what was important—precise language—and what was not—a patient’s race or economic status. His trainees learned that patients were to be referred to as men and women, not males and females. They had arms and legs, not extremities. Mentioning their race was irrelevant and so was whether they were being treated by the private or public hospital service. “What, did they have a wallet biopsy or something?” he would ask.



Lewis Rowland and Salvatore DiMauro being interviewed at the 1981 Jerry Lewis MDA Labor Day Telethon

As department chair, Dr. Rowland initiated neurology residencies at Harlem Hospital and, rare among department heads, went there himself twice a month to conduct rounds. “Our students and residents got a perspective on medical issues of a disadvantaged inner city population,” Dr. Pedley says, “but they also saw the environment in which those issues occurred and understood a relationship between environment and health care and the consequences of not having the same kind of health care that you have on Park Avenue.”

Influenced by Esther, a dean and preprofessional adviser at Barnard College, Dr. Rowland worked to advance the number of women in neurology. “I think he appointed women where he could both in professional organizations as well as within the department,” says Dr. Pedley. “He had enormous voice nationally about the need for advancing women in neurology and in medicine as a whole.” Today, Columbia’s classes of neurological residents often include more women than men; women make up close to 50 percent of the neurology faculty, including six full professors.

Dr. Rowland’s son, Andy, marvels at his father’s love of talking to people, from the grocery store clerk to whoever he was seated next to at a wedding. However embarrassing it was to teenage Andy, “for him, it was all about the sharing.”

“He was a humanist. He genuinely liked people. There was no such thing as a big shot and a little shot,” says Dr. Fahn. “There were just people, and he helped everybody equally.”

In a 2000 New York Times article about the wedding of his daughter, Joy, Dr. Rowland proudly pointed out something that indicated his three children were as committed as their parents to serving others. All had chosen careers with an important word in common: *public* health (Andy), *public* radio (Steve), and *public* interest law (Joy). Being Bud Rowland, of course, he closed with a joke: “Which means you don’t get paid.” ❖

# TEST YOUR PAST\* QUOTIENT

\*P&S TRIVIA (HISTORICAL TIDBITS YOU MAY—OR MAY NOT—KNOW ABOUT COLUMBIA P&S)



## 1. Which of the following was associated with NASA?

- George R. Merriam '41
  - Baruch Blumberg '51
  - Charles L. Donaldson '56
  - Story Musgrave '64
- 

## 2. Which virus causes Kaposi's sarcoma?

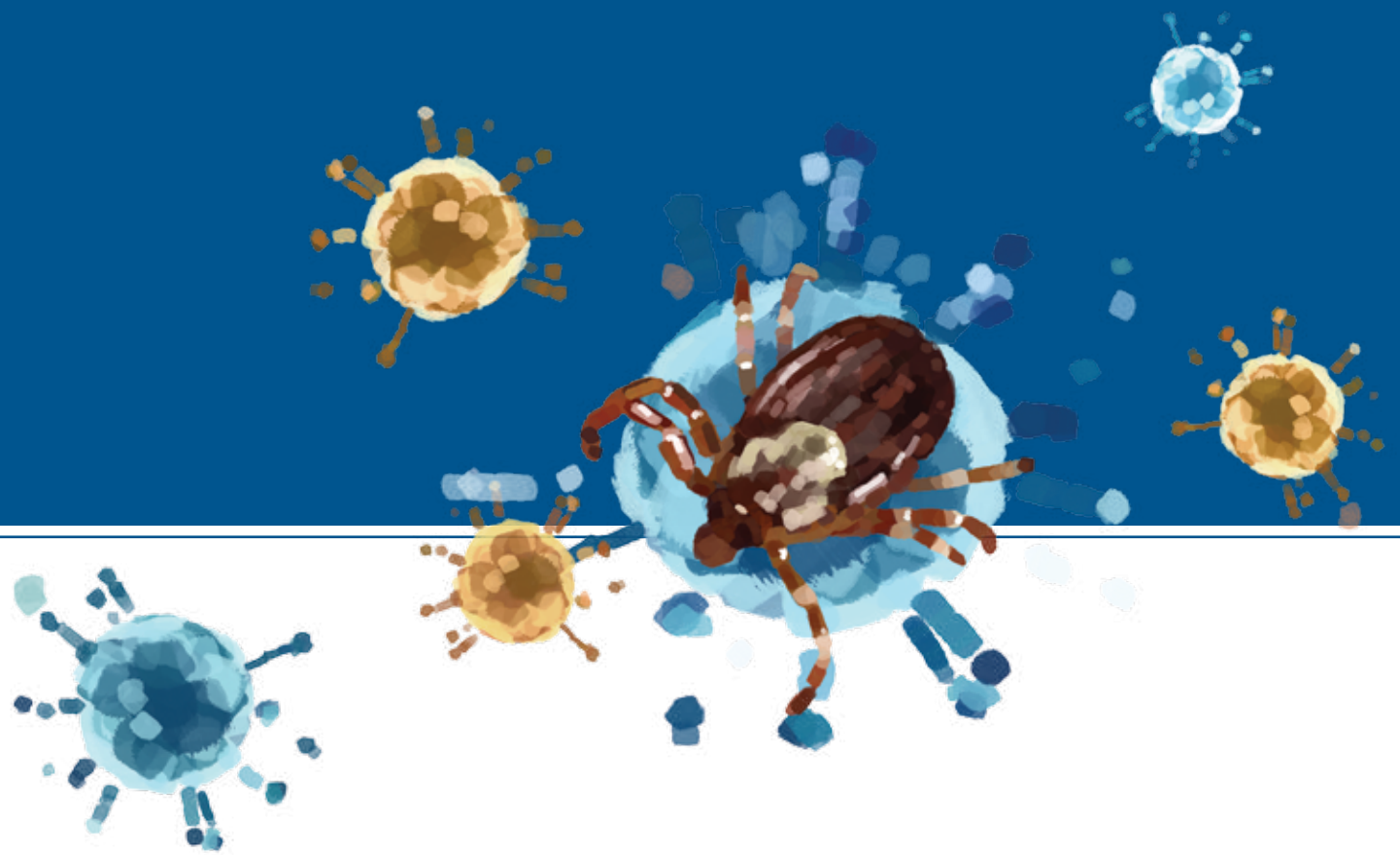
- Merkel cell polyomavirus
  - human herpes virus 8
  - human immunodeficiency virus
  - hepatitis B virus
- 

## 3. Which of the following Columbians did not receive a Pulitzer Prize?

- Walker Percy
- Siddhartha Mukherjee
- Robert Coles
- Robert Butler

ILLUSTRATIONS BY  
ALYSSA CARVARA





**4. Whose basic research into the microbiology of a tick-borne epidemic yielded the diagnostic test for rheumatoid arthritis still used by physicians today?**

- Harry Rose
- Melvin Yahr & Margaret Hoehn
- Michael Terman

**5. Which of the following have been won by Columbians?**

- Emmy award
- Nobel Prize
- Pulitzer Prize
- MacArthur Genius Grant

**6. Match these innovations with their innovators.**

- |                            |   |
|----------------------------|---|
| forceps                    | Alvan L. Barach                           |
| cardiac catheterization    | Balbina Johnson & Frank Meleney           |
| pediatric heart transplant | James McLane                              |
| oxygen tent                | Eric A. Rose & Keith Reemtsma             |
| bacitracin                 | André F. Cournand & Dickinson W. Richards |





**7. Which of these addresses have been home to P&S over the years?**

- No. 67 Crosby Street
  - Corner of 23rd Street and Fourth Avenue
  - 3 Barclay Street
  - Duane Street
  - West 59th Street
  - Robinson Street (now Park Place)
  - Magazine Street (now Pearl Street)
- 

**8. Who was the first known teacher of a course in pathology?**

- William Osler
  - Alonzo Clark
  - Nicholas Romaine
- 

**9. What was the cost for a year of medical school at P&S in 1807?**

- \$450
- \$130
- \$290
- \$15



**10. For whom is the Atchley-Loeb Conference Room named?**

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**11. Which members of the early P&S notables had criminal records?**

- Nicholas Romayne
- William J. Macneven
- Robert Tucker

**12. What was the first official need-based scholarship in P&S?**

- William H. Vanderbilt Scholarship
- Harsen Prize
- Alonzo Clark Scholarship
- Alumni Fellowships

**13. Who was the first woman faculty member at P&S?**

- Adelaide Spohn
- Wera Dantschakoff
- Rosalie Morton
- Catherine Coleman
- Miriam Olmstead

**14. What describes the contributions made by P&S psychiatrist Lawrence Kolb?**

- description of phantom limb pain
- PTSD among Vietnam veterans
- establishment of the first lithium clinic

**15. What is William Stewart Halsted best remembered for?**

- introduction of sterile gloves during surgery
- as a P&S graduate
- introduction of radical mastectomy to treat breast cancer
- as one of the "Big Four" founding professors of Johns Hopkins Hospital
- addiction to cocaine and morphine

**Answers appear on the following pages.**

**Bonus Question:**

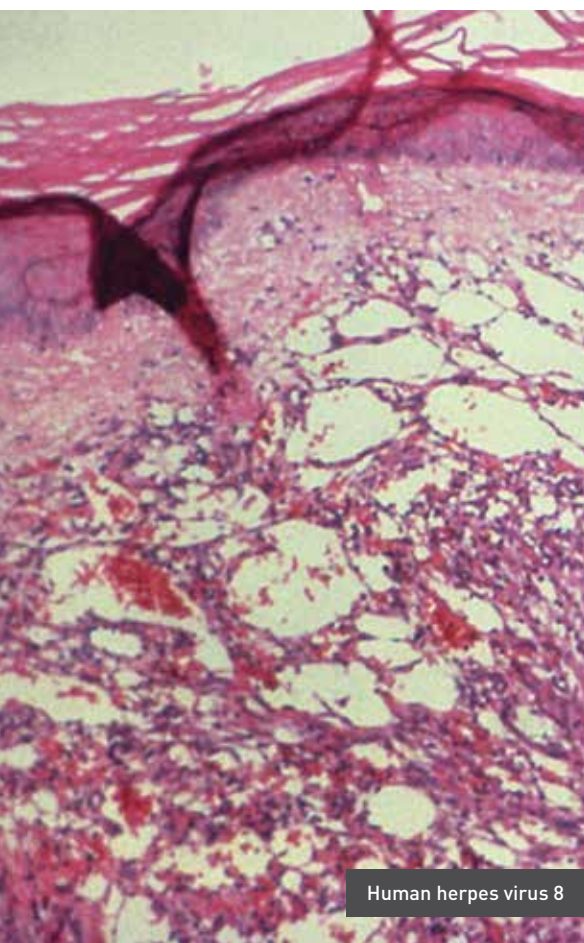
Which American university opened in 1821 as Columbian College and whose early medical school graduates are sometimes mistakenly identified as Columbia medical school graduates?

**See the answer at the magazine's website, [columbiamedicinemagazine.org](http://columbiamedicinemagazine.org)**

# TEST YOUR PAST\* QUOTIENT

\*PHYSICIANS AND SURGEONS TRIVIA

## THE ANSWERS



Human herpes virus 8

1. All—and most likely others—had a connection to NASA. Story Musgrave, a 1964 graduate and an astronaut for more than three decades, has the most prominent connection. He flew on six space flights. George Merriam, a 1941 graduate, was a consultant to NASA in the 1960s on the possible effects of ion radiation on astronauts. Baruch Blumberg, a 1951 graduate who received a Nobel Prize for the discovery of the hepatitis B virus and development of a vaccine, directed the NASA Astrobiology Institute, dedicated to the study of the origins of life on Earth and the search for life elsewhere. Charles Donaldson, a 1956 graduate, conducted research on weightlessness in space travel for NASA.

2. Human herpes virus 8. In the 1980s, doctors treating people infected with HIV began seeing waves of Kaposi's sarcoma, a rare, slow-growing cancer that often appears as reddish-purple or blue-brown tumors just underneath the skin. By the early 1990s, epidemiologists had begun speculating that Kaposi's was caused by a sexually transmitted virus, unleashed by the immune suppression triggered by HIV. In 1992, Yuan Chang, MD, then a P&S assistant professor of pathology, and her husband, Patrick Moore, MD, an associate professor of epidemiology, analyzed Kaposi's sarcoma lesions collected from the autopsy service at Columbia-Presbyterian Medical Center. Using representational difference analysis, which reveals genetic differences in paired biological samples, they identified, in just five weeks, human herpes virus 8, a previously unknown species of herpesviridae. Science published their report in 1994. Now at the University of Pittsburgh, Drs. Chang and Moore subsequently discovered the polyomavirus behind Merkel cell carcinoma.

3. Even though Walker Percy, a 1941 graduate, received many awards for his novels (“The Moviegoer,” “Love in the Ruins”), he did not receive a Pulitzer. Siddhartha Mukherjee, a faculty member, received a Pulitzer for general nonfiction in

2011 for “The Emperor of All Maladies: A Biography of Cancer.” Robert Coles, a 1954 graduate, received a Pulitzer in 1973, also for general nonfiction, for volumes 2 and 3 of “Children of Crisis: A Study of Courage and Fear,” a series about how children and their parents deal with profound change, including racism and desegregation. He also wrote a popular children's book based on one child's experience, “The Story of Ruby Bridges.” Robert Butler, a 1953 graduate, received a Pulitzer in 1976 in the general nonfiction category for his book “Why Survive? Being Old in America.”

4. Harry Rose. Following a 1946 outbreak of rickettsial pox among residents of Kew Gardens in Queens, P&S chief microbiologist Harry Rose, MD, set out to investigate the chicken pox-like malady with help from Elizabeth Pearce, a young tech in his laboratory. As was not uncommon among researchers in those days, Miss Pearce herself soon developed the disease and thus included samples of her own blood among those she was testing. Among the tests Dr. Rose and Miss Pearce conducted, one measured clotting response. All of the samples tested negative—except that drawn from Miss Pearce, who also had rheumatoid arthritis. Dr. Rose and colleagues at Columbia-Presbyterian's Faulkner Clinic for Arthritis subsequently observed that more than 50 percent of people with rheumatoid arthritis showed similar clotting responses. The team—with Miss Pearce among the co-authors—reported the findings in the May 1948 Proceedings of the Society for Experimental Biology and Medicine. Years later, it was discovered that, in 1940, Erik Waaler of Norway had reported similar results using sensitized sheep cells, but the discovery had gone unnoticed in the fog of war. Melvin Yahr, the first scientific director of the Parkinson's Disease Foundation and a pioneer in the development of the amino acid L-dopa as a treatment for Parkinson's disease, worked with his P&S colleague, Margaret Hoehn, to develop the clinical criteria for Parkinson's disease that are still used today to evaluate the severity of the disease. Michael Terman, MD, is professor of clinical psychology and director of the Winter Depression Program at the New York State Psychiatric Institute, where



his randomized controlled trials throughout the 1990s confirmed the efficacy of bright light as a treatment for seasonal affective disorder.

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**5.**

All of these awards have been earned by Columbia alumni or faculty. Matt Iseman'98 has hosted shows on several TV networks. His hosting of one of those shows, "Clean House Comes Clean," earned Dr. Iseman an Emmy, a first for the Style network. Other Columbians have received Emmys for health care reporting. Faculty member Siddhartha Mukherjee and alumni Robert Butler and Robert Coles received Pulitzers. Counting current and former faculty, housestaff, MD alumni, and former postdocs and trainees, 22 Columbians with P&S connections have received Nobel Prizes (in physiology or medicine or in chemistry). That includes 2017 Chemistry Nobel Laureate Joachim Frank, a current P&S faculty member. Current faculty member Wafaa El-Sadr and alum Robert Coles have received grants as MacArthur Fellows. Dr. Coles was in the first class of recipients, in 1981.

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**6.**

**Forceps:** As first director of the Sloane Maternity Hospital, Dr. McLane, an 1864 graduate, designed and used the McLane forceps, later modified as the Tucker-McLane forceps and still used in some deliveries today.

**Cardiac catheterization:** P&S faculty members André Cournand and Dickinson

Richards, a 1923 graduate, were awarded a Nobel Prize in 1956 for their endeavors to reveal the functions of the human heart and lungs in health and disease.

**Pediatric heart transplant:** Cardiac surgeons Eric A. Rose, a 1975 graduate, and Keith Reemtsma performed the first successful pediatric heart transplant during a six-hour operation at Columbia-Presbyterian in 1984.

**Oxygen tent:** Alvan L. Barach, a 1919 graduate, developed the first practical oxygen tent in the mid-1920s while on the staff of Presbyterian Hospital. Meant for the treatment of asthma, dyspnea, and pulmonary edema, the portable contraption maintained a high percentage of oxygen, while removing excess heat, water vapor, and carbon dioxide.

**Bacitracin:** A 7-year-old girl, Margaret Treacy, was brought to Presbyterian Hospital's emergency room in June 1943 for treatment of a leg injury she suffered when she was hit by an automobile. The injury was infected with *Bacillus subtilis*. A culture taken from the wound was sent to the surgical bacteriological laboratory where its director, bacteriologist Balbina Johnson, discovered that the *Staphylococcus aureus* seen in the initial microscopic examination had disappeared overnight. Working with surgeon Frank L. Meleney, a 1916 graduate, Ms. Johnson determined that the *Staph aureus* had been killed by a microbe. Discovery of the microbe led to the development of a powerful new antibiotic. The two named the antibiotic Bacitracin, a combination of parts of the words *Bacillus* and the child's surname, which the researchers misspelled as *Tracy*.



Balbina Johnson

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**7.**

All, except for Duane Street. That's the address of Rutgers Medical School, established in 1826 when all six members of the P&S faculty resigned to establish a rival institution. While P&S replaced its faculty briskly enough to maintain its educational program uninterrupted, the Rutgers affiliate at Duane Street lasted just four annual sessions. Rutgers would not resume medical education until the 1960s.



Wafaa El-Sadr, MD

# TEST YOUR PAST\* QUOTIENT

\*PHYSICIANS AND SURGEONS TRIVIA

## THE ANSWERS

**8.** Alonzo Clark. Throughout the late 1830s, Dr. Clark, an 1835 graduate, traveled many times to Europe, where he explored methods by which the stethoscope and the microscope might be applied in medical work. When he returned to New York in 1840, Dr. Clark began performing autopsies at New York and Bellevue hospitals, aided by the use of the microscope. He introduced the formal study of pathology as a lecturer at a medical school in Woodstock, Vt. In 1847, Dr. Clark was appointed attending physician at Bellevue, where he introduced the use of the stethoscope for examination of the abdomen and chest. He served as president of P&S from 1875 until 1884. Dr. Romaine, president of P&S from 1807-11, offered the first course in forensic medicine at the Medical Institution of the State of New York, a school he founded after leaving P&S. Dr. Osler, founding physician-in-chief of Johns Hopkins Hospital, authored “The Principles and Practice of Medicine,” a companion to his curriculum for medical education.

**9.** A year’s worth of lecture tickets (initially four months) would have added up to \$40. With a \$5 matriculation fee and room and board estimated at \$3-\$5 per week, the projected cost for a year of medical school was roughly \$130.

**10.** Alumni and faculty “of a certain age” will be able to answer this in detail. Dana Atchley (1892-1982) and Robert Loeb (1895-1971) were among the legendary giants of the P&S faculty in the mid-20th century. Drs. Atchley and Loeb (along with other faculty members) moved from Johns Hopkins to P&S in 1921 when Walter Palmer became chair of medicine at P&S. During the 1940s, Dr. Atchley developed the legendary “Atchley History” form, a comprehensive, systematic outline designed to elicit all relevant information from patients about their personal and family histories, prior health and illnesses, and the present illness. His greatest strength, it has been written, was that he urged students to think critically—to weigh evidence, to distinguish fact from fiction in what patients said. Dr. Loeb,

who later became chair of medicine, was loved and feared in equal parts. The P&S faculty during the late 1940s and throughout the 1950s had dozens of luminaries, and Dr. Loeb was the star, creating a reputation as a brilliant clinician and bedside teacher. Clinically, he became an expert on Addison’s disease and his team’s pioneering studies of electrolyte abnormalities in human adrenal disease and uncontrolled diabetes made Dr. Loeb and the Department of Medicine world-famous. He is remembered decades later for the indelible imprint he made on generations of medical students, house officers, and members of the medical staff. His first love was teaching students and residents, in whom he inspired respect, veneration, terror, awe, worship, and love.

**11.** Romaine and Macneven—as far as we know. Before his appointment as founding president of P&S in 1807, Dr. Romaine was incarcerated for a time in Philadelphia for “high crimes and misdemeanors” associated with conspiracy to gain control of Florida and Louisiana. Dr. Macneven, born in Ireland and trained in medicine at the University of Vienna, was a member of United Irishmen; he was arrested and imprisoned until 1802 for his part in the rebellion of 1798 protesting British rule of the Emerald Isle. In 1770, Dr. Tucker became the first person to be awarded an MD degree by an American college—King’s College Medical School, forerunner of the present-day College of Physicians & Surgeons. Some historians speculate that Dr. Tucker was a British loyalist who fled the Colonies during the Revolutionary War.

**12.** The Harsen Prize (1903) was given to second-, third-, and fourth-year students “whose record for ability and scholarship gives evidence of special fitness and who need pecuniary aid to obtain an education.” Third-year student Irving Wilson Voorhees was among the initial recipients. Dr. Voorhees, who graduated in 1905 and became a laryngologist with a specialty in the voice, served 40 years as assistant surgeon at Manhattan Eye, Ear and Throat Hospital and taught for eight years on the P&S faculty.



Dana Atchley, seated at center, and Robert Loeb, standing, with colleagues in 1958

ELIZABETH WILCOX

The Vanderbilt Scholarship was among the faculty scholarships created after 1904, a year in which P&S increased tuition by 25 percent. The Alonzo Clark Scholarship was given to faculty “for the purpose of promoting the discovery of new facts in Medical Science.” Alumni Fellowships, created in 1891, were awarded to P&S graduates to support scientific research in anatomy, physiology, or pathology.

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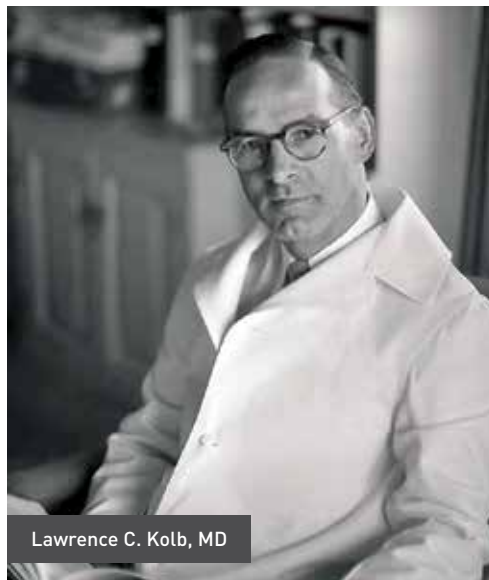
**13.**

The answer depends on how *faculty* is defined. Per a review by Archives & Special Collections of P&S faculty minutes, several appointments of women were made as early as 1916 but the titles might not qualify them as faculty in today’s use of the term. Adelaide Spohn was named a research assistant in physiology in December 1916. Several of the women listed as possible answers were appointed in 1917 (the same year P&S accepted women students): Miriam Olmstead was appointed as a resident bacteriologist in pathology, Catherine Coleman as a clinical chemist, and Rosalie Morton as an attending surgeon. In 1916, several women were appointed to positions, including assistant physician, in the TB service at Bellevue Hospital, where P&S had a longtime academic affiliation until 1968. The first woman named to a professorial rank at P&S was Wera Dantschkoff, who was appointed an assistant professor in anatomy in March 1917.

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**14.**

All of these and more. By the time Lawrence C. Kolb, MD, arrived at P&S in 1954, he had already crafted the definitive account of the condition now known as phantom limb pain. As chair of the P&S psychiatry department and director of the New York State Psychiatric Institute, he helped to expand psychiatry, integrating it within the medical school and collaborating with politicians and patient advocates to establish mental health clinics in Harlem and other neighborhoods. He advocated for psychiatric care for drug abusers, criminals with mental illness, and those who could not afford it, and he established the nation’s first lithium clinic for the treatment of bipolar



Lawrence C. Kolb, MD

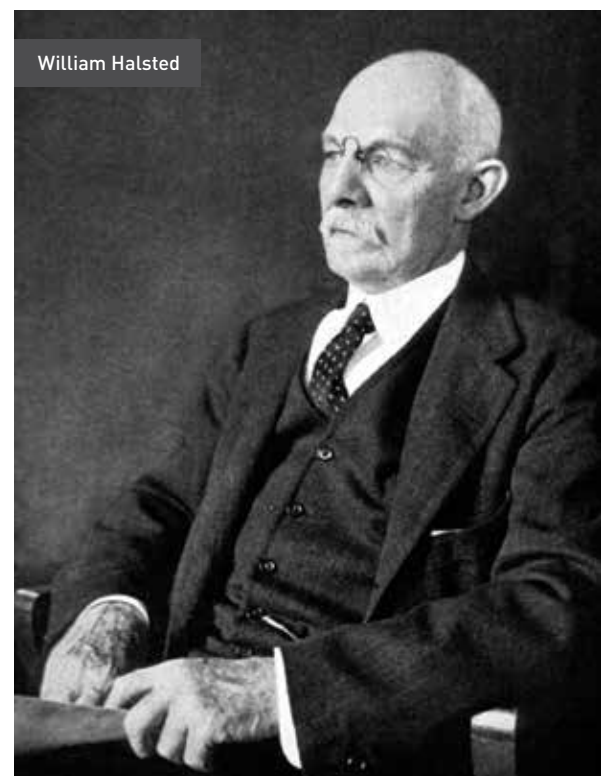
ELIZABETH WILCOX

disorder. In 1975, he was appointed commissioner of mental health for New York state. His studies demonstrating how combat stress could cause physical symptoms prompted the U.S. government to undertake large studies of post-traumatic symptoms among Vietnam veterans. At Columbia, the research annex to the New York State Psychiatric Institute is named for him.

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**15.**

The answer is subjective, but in terms of medical contributions, William Halsted may best be known for introducing several surgical techniques, notably radical mastectomy. Dr. Halsted’s radical mastectomy was cutting edge in 1882 when he first perfected the technique based on his scientific understanding of the physiology of the breast and his painstaking precision. The procedure became the standard for 75 years. The 1877 P&S graduate is also credited with introducing the use of sterile gloves in the 1890s (because of the dermatitis his surgical nurse Caroline Hampton—later his wife—developed from the carbolic acid solution used to clean the instruments). His mother was his patient in 1882 when he performed the first known operation to remove gallstones. His addiction to cocaine—legal at the time—and morphine was his undoing in New York but he rebuilt his career in Baltimore, where he became one of the founding physicians at Johns Hopkins.



William Halsted

# P&S HISTORY:

## 25 Years

*Scientific and Medical Contributions*



**1818**  
 Valentine Mott (1806 graduate) is the first surgeon in the world to operate on the innominate artery, a vessel near the heart, to treat an aneurysm. The daring operation to ligate that artery had never been tried.

**1872**  
 Huntington disease is identified by George Huntington a year after he graduated from P&S.



**1911**  
 Columbia University and Presbyterian Hospital sign an agreement to establish the world's first academic medical center.



**1940**  
 Dickinson Richards (1923 graduate), left, and André Cournand develop a technique to catheterize the heart, forever changing cardiopulmonary research and patient care. The work earns them the 1956 Nobel Prize.



**1943**  
 Bacitracin is developed as a new antibiotic, one that remains in use today.

**1947**  
 Elvin Kabat, PhD, identifies multiple sclerosis as an autoimmune disease.

**Late 1940s**  
 Biochemist Erwin Chargaff, PhD, develops "Chargaff's rules," which influence the discovery by Watson and Crick of the double helix structure of DNA.



**1950s**  
 The genetic basis of sickle cell disease is elucidated by Helen Ranney (1947 graduate), leading to a simple way to test newborns.

**1950s**  
 E. Donnell Thomas, MD, a faculty member at P&S affiliate Bassett Hospital in Cooperstown, N.Y., pioneers bone marrow transplantation, earning him a Nobel Prize in 1990.

**1984**  
 Surgeons perform the first successful pediatric heart transplant.



**1993**  
 Nancy Wexler, PhD, leads an international team that identifies the gene for Huntington's disease.

**1997**  
 Researchers led by Donald Landry, MD, PhD (1983 graduate), identify vasopressin to treat vasodilatory shock.

**1998**  
 Angela Christiano, PhD, identifies the first human gene associated with hair loss.

**2000**  
 Eric Kandel, MD, receives a Nobel Prize for research on the physiological basis of memory storage in neurons.



**1935**

Surgeon Allen O. Whipple (1908 graduate) develops the Whipple procedure to treat some forms of pancreatic cancer.



**1938**

Pathologist Dorothy Andersen, MD, PhD, identifies cystic fibrosis.



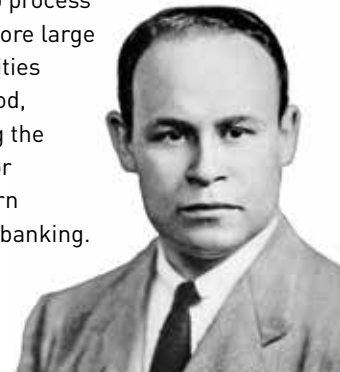
**1939**

Pediatrician Hattie Alexander, MD, develops the first effective treatment for a lethal form of bacterial meningitis.



**Late 1930s**

Graduate student Charles Drew identifies an efficient way to process and store large quantities of blood, paving the way for modern blood banking.



**1953**

Virginia Apgar (1933 graduate) publishes details of her score to assess newborn health. The Apgar Score remains in use as the first test given to newborns throughout the world.



**1950**

Arthur Voorhees (1946 graduate) uses a synthetic graft made of vinyon "N" cloth to unite blood vessels.

**1959**

Vincent Freda, MD, becomes the first American doctor to perform amniocentesis.

**Early 1960s**

RhoGAM is developed as a vaccine that will eradicate Rh disease in newborns.

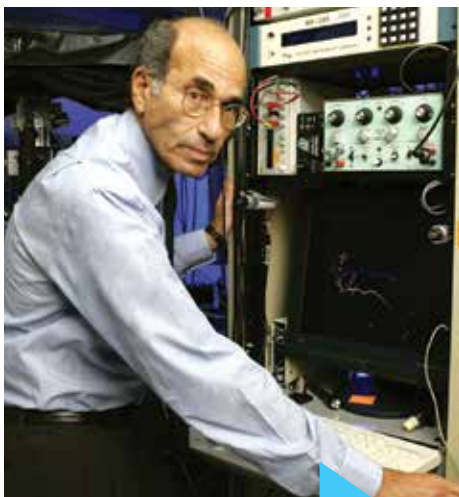


**1979**

Richard Axel, MD, Saul J. Silverstein, PhD, and graduate student Michael H. Wigler discover a technique, called cotransformation, which allows foreign DNA to be inserted into a host cell to produce certain proteins. The process is responsible for new pharmaceuticals, including tPA, which dissolves blood clots.

**2004**

Richard Axel, MD, receives a Nobel Prize for identifying genes for odor receptors.



**Since 2007**

Columbia doctors, led by Craig Smith, MD, and Martin Leon, MD, conduct clinical trials that prove the value of minimally invasive procedures to replace aortic valves in patients who cannot tolerate open-heart surgery.

**2017**

Structural biologist Joachim Frank, PhD, receives a Nobel Prize in Chemistry for his role in using cryo-electron microscopy to reveal the structures of large biological molecules at atomic resolution.



These contributions include several made by alumni who were also faculty members. See the next page for a list of other alumni who changed medicine over the past 250 years.

# P&S HISTORY:

**25** *Years*  
Select P&S Alumni\*  
*Who Changed Medicine*

\* THROUGH 1998

**John Torrey (1818)**, a medical botanist for whom Torrey's Peak and Torrey Pine are named

**David McDonogh**, a slave who completed studies at P&S in 1847 but was not allowed to graduate yet is considered to be America's first African-American eye specialist

**Amos Wilson Abbott (1869)**, founder of Abbott Hospital in Minneapolis and a founder of the American College of Surgeons

**Edward Trudeau (1871)**, TB specialist and public health pioneer

**William Welch (1875)**, one of "Big Four" founding professors of Johns Hopkins Hospital

**L. Emmett Holt (1880)**, pediatrics pioneer

**M. Allen Starr (1880)**, pioneer in development of neurology as a specialty

**Oswald Avery (1904)**, pioneer in immunology who discovered DNA as the substance responsible for heredity

**Burrill Crohn (1907)**, identified Crohn's disease

**Alvan Barach (1919)**, developed first practical oxygen tent

**Gulli Lindh Muller (1921)**, who made it possible for women to study at P&S

**Virginia Kneeland Frantz (1922)**, member of surgical pathology team that described the insulin secretion of pancreatic tumors

**Benjamin Spock (1929)**, revolutionary baby doctor whose books influenced the way parents raise their children

**J. Lawrence Pool (1932)**, pioneer in vascular neurosurgery

**Ephraim Engleman (1937)**, pioneering rheumatologist and arthritis researcher

**John Lattimer (1938)**, helped establish the field of pediatric urology

**C. Lockard Conley (1940)**, pioneering hematologist who conducted landmark inquiries into blood coagulation and sickle cell anemia

**Margaret Morgan Lawrence (1940)**, leader in child psychiatry

**M. Irene Ferrer (1941)**, refined the cardiac catheter and electrocardiogram

**Albert Stunkard (1945)**, pioneering researcher of eating disorders and obesity

**Arnold Relman (1946)**, influential editor-in-chief of New England Journal of Medicine

**Alfred Knudson (1947)**, developed a two-hit hypothesis for cancer

**Helen Ranney (1947)**, hematologist who elucidated the genetic basis of sickle cell disease and first woman to chair a department of medicine at a major medical school (UC-San Diego)

**Lawrence L. Weed (1947)**, introduced a system now used in hospitals worldwide to organize patient data

**Gilbert Ashwell (1948)**, glycobiology pioneer and co-discoverer of the Ashwell receptor

**Hugo Moser (1948)**, researcher recognized for his research on peroxisomal disorders

**Elizabeth Davis (1949)**, founding director of Harlem Hospital's psychiatry department

**Paul Marks (1949)**, president and CEO of Memorial Sloan Kettering Cancer Center for 19 years

**Albert Starr (1949)**, co-invented and successfully implanted the world's first artificial heart valve

**Baruch Blumberg (1951)**, Nobel Prize winner for his work on hepatitis B

**Norman Bank (1953)**, researcher and one of the founders of nephrology

**Robert Butler (1953)**, noted for his work on the social needs of the elderly

**Ernie Vandeweghe Jr. (1953)**, attended P&S while playing for the New York Knicks and later was the LA Lakers team doctor

**Robert Coles (1954)**, noted for his social study of children in the United States

**P. Roy Vagelos (1954)**, former CEO of Merck & Co., which developed many major new drugs under his leadership

**Burton Lee (1956)**, White House doctor under president George H.W. Bush

**Donald Lindberg (1958)**, pioneer in applying computer technology to health care

**Kenneth Forde (1959)**, pioneer in the use of endoscopy as a diagnostic and surgical tool

**Story Musgrave (1964)**, astronaut on six spaceflights and lead spacewalker to repair the Hubble Telescope

**Suzanne Oparil (1965)**, leading cardiologist and researcher whose work contributed to the development of ACE inhibitors

**Ted Stanley (1965)**, anesthesiologist who co-created the fentanyl lollipop

**Robert Lefkowitz (1966)**, Nobel Prize winner for discovering the inner workings of cell surface receptors

**Harold Varmus (1966)**, Nobel Prize winner for discovering the cellular origin of retroviral oncogenes and later director of the NIH and the National Cancer Institute

**Allen Steere (1969)**, co-discovered Lyme disease

**Eve Slater (1971)**, first woman to become U.S. assistant secretary for health

**Yvonne Thornton (1973)**, first African-American woman to be board-certified in high-risk obstetrics

**John Eng (1974)**, discovered that the poisonous venom of a Gila monster lizard had the potential to treat diabetes, leading to a drug approved in 2005

**Donna Mendes (1977)**, first African-American female vascular surgeon certified by the American Board of Surgery

**Oheneba Boachie-Adjei (1980)**, orthopedic surgeon whose foundation opened an orthopedic hospital in Ghana

**Karin M. Muraszko (1981)**, first woman to chair neurosurgery at any medical school in the United States (University of Michigan)

**Velma Scantlebury (1981)**, first African-American transplant surgeon in the United States and first African-American woman to perform a kidney transplant

**J. Nozipo Maraire (1992)**, neurosurgeon who returned to her native Zimbabwe to build a hospital

**Mary Killachey (1998)**, first woman to chair surgery at Tulane University

# Alumni News & Notes

Marianne Wolff '52, Alumni News Editor

Peter Wortsman, Alumni News Writer

Additional class notes by  
Bonita Eaton Enochs, Editor

## 1948

**Gerard M. Turino**, the John H. Keating Sr. Professor Emeritus of Medicine at P&S, received the P&S Distinguished Service Award for clinical sciences at this year's graduation ceremony.

## 1957

See Alumni in Print to read about a book by **George M. Burnell**, assistant professor of psychiatry at Stanford University and the University of Hawaii. George also is chief emeritus of psychiatry at Kaiser Permanente medical centers



in Santa Clara, Calif., and Honolulu. He has lectured on the health effects of nutrition on aging for more than three decades.

## 1961

**Robert Scott** submitted a piece for the Scrapbook section of the P&S 250 website, writing about his time at P&S from September 1957 to June 1961. See his submission at the website at [250.ps.columbia.edu/scrapbook](http://250.ps.columbia.edu/scrapbook).

## 1964

**Story Musgrave** visited New York City in September to speak at the P&S Alumni Council dinner. He also took time to speak to students in the Space Medicine Club about



Story Musgrave '64, right

his 30-year career with NASA as an astronaut. Space Medicine Club co-president Henry Philofsky '20 interviewed Story for a 250th anniversary video series. With the camera rolling, Story also taped an anniversary greeting that was shown at P&S Dean Lee Goldman's 2017 State of the School presentation.

## 1965

**Suzanne Oparil** received a gold medal for Outstanding Achievements in Medical Research at this year's alumni reunion.

**James A. Reiffel** writes that since retiring from practice and becoming professor emeritus of medicine at P&S in 2015, his professional career has continued to thrive. He advises several medical companies regarding new therapies for cardiac arrhythmias while continuing to do clinical research and to write. In May he presented results of the REVEAL AF trial (as PI and steering committee chair) at the Heart Rhythm Society annual scientific sessions. "Using a tiny implantable cardiac rhythm monitor, we found a substantial incidence of atrial fibrillation in demographically identified patients who never knew they were having it, with implications for stroke prevention and saving lives using this technique." He has

authored or co-authored more than 40 medical publications since retirement and published his second children's book (again illustrated by his granddaughters). He continues to serve as peer reviewer and member of editorial boards for several cardiology and electrophysiology journals and was recently named section editor for a new section on pharmacological therapy in the Journal of Innovations in Cardiac Rhythm Management. He also serves on steering committees or executive committees of four multicenter trials and periodically appears as guest physician on FOX TV news programs in New York City. He also is co-editor of a textbook, "Cardiac Arrhythmias, Pacing, and Sudden Death," published this year.

## 1968

**Faye Natanblut Laing** was honored in May with a "Women Making History Award" from the National Women's History Museum. In the photo below, Faye is shown on the left posing with other honorees, including former First Lady Laura Bush. The mission of the museum is to raise awareness and honor women with diverse experiences and achievements. The museum is now a virtual museum, but the future building planned for the National Mall in Washington, D.C., will be the first

museum in any nation's capital to show the full scope of the history of women. Faye was recognized for her 40-year career in academic radiology and for dedicating her life's work to advancing diagnostic ultrasound.

## 1969

**Thomas P. Sculco** was Honorary Dean's Day Chairman at this year's alumni reunion.

## 1971

**George M. Lazarus** received a gold medal for Meritorious Service to the College of Physicians & Surgeons and its Alumni Association at this year's alumni reunion.



John W. Lombardo '73

## 1973

**John W. Lombardo** has left the private practice of surgical ophthalmology.



# Reunion 2017

## Dean's Day speakers



Abdul El-Sayed'14, Fadlo R. Khuri'89, Mary-Jeanne Kreek'62, and Marc D. Grodman'77

## Alumni Day speakers



Kenneth J. Tomecki'72, Leslie H. Gise'67, William M. Lee'67, and Lisa F. Schneider'07



## Gala Guest

At this year's alumni reunion gala, **Ron Cohen'81** enchanted the crowd of alumni and soon-to-be MDs in the Class of 2017, channeling the spirit of Dr. Samuel Bard in his forceful impersonation of the founder of Columbia's medical school. He delivered excerpts from "A Discourse Upon the Duties of a Physician," Dr. Bard's remarks delivered at the 1769 commencement of King's College (which became Columbia University). The text was adapted for the stage by Alumni News Writer Peter Wortsman. Star of numerous Bard Hall Players productions, Dr. Cohen is president and CEO of Acorda Therapeutics, a biotechnology company focused on developing therapies that restore function and improve the lives of people with MS, spinal cord injury, and other neurological conditions.

## Alumni Honorees



Medal recipients Ryan England'17, Daniel D. Von Hoff'73, Alumni Awards Committee Chair Kenneth Forde'59, Alumni Association President Kathie-Ann Joseph'95, George M. Lazarus'71, Suzanne Oparil'65, Lee Goldman, and Yvonne S. Thornton'73, recipient of the Virginia Kneeland Frantz'22 Award for Distinguished Women in Medicine

mology after 38 years to become president of Medical Liability Mutual Insurance Company, the largest medical malpractice insurance company in New York state. The company is being acquired by Berkshire Hathaway. John is also a Columbia College graduate (Class of 1969).

A gold medal for Outstanding Achievements in Medical Research was awarded to **Daniel D. Von Hoff** at this year's alumni reunion.

**Yvonne S. Thornton** received the Virginia Kneeland Frantz'22 Distinguished Women in Medicine Award at this year's alumni reunion. Yvonne serves as clinical professor of obstetrics & gynecology at New York Medical



Shearwood J. McClelland'74 with wife Yvonne S. Thornton'73, recipient of the 2017 Virginia Kneeland Frantz'22 Award for Distinguished Women in Medicine

College, Westchester Medical Center in Valhalla.

## 1978

**Andrew M. Kaunitz** received a University of Florida Term Professorship award from the UF Provost's Office.



Andrew M. Kaunitz'78

The awards recognize individuals for distinguished careers that place them among the leaders in their discipline. He is UF Research Foundation Professor and associate chair of obstetrics & gynecology at UF College of Medicine-Jacksonville and medical

director and director of menopause and GYN ultrasound services at UF Health Women's Specialists-Emerson.

## 1980

**Natalia Kanen** was appointed in October to a four-year term as execu-



Natalia Kanen'80





tive director of the United Nations Population Fund. Natalia, U.N. under-secretary-general, has been the fund's acting executive director since June. She served the Population Fund in other capacities, including as the fund's representative in Tanzania from 2014 to 2016. She has held senior positions in the Ford Foundation and other organizations. In addition to her MD from P&S, she earned a master's degree in public health from the University of Washington.

### 1981

**Ron Cohen** reprised his role as Samuel Bard at P&S Dean Lee Goldman's 2017 State of the School presentation in September. He congratulated the faculty and staff



Two deans, different eras: Ron Cohen as the first dean, Samuel Bard, poses with the current dean, Lee Goldman, after the 2017 State of the School.

on 250 years of success, quoting from the speech Dr. Bard delivered at the first King's College medical school graduation in 1769.

### 1982

**Michael J. Devlin**, professor of psychiatry at P&S, was honored by the Class of 2017 with the Distinguished Teacher Award at this year's graduation ceremony.

See Alumni in Print to read about a book co-authored by **John Markowitz**. John, a research psychiatrist at New York State Psychiatric Institute and professor of clinical psychiatry at P&S, wrote the book, a manual on interpersonal psychotherapy, with Myrna Weissman, PhD,

another member of Columbia's psychiatry faculty.

### 1987

**Alyssa Dweck** has co-authored a women's health book, which is described in this issue's Alumni in Print. Alyssa is a gynecologist and gynecological surgeon at CareMount Medical in Westchester County. She also specializes in female sexual health and medical sex therapy. She wrote the book to address topics she has been asked about during her 20-year career. She also has a master's degree in human nutrition from Columbia.

The latest book of poetry by **Dawn McGuire** is described in



Dawn McGuire '87

the Alumni in Print section. Dawn, a neurologist, wrote these poems after being inspired by working with post-9/11 veterans who returned from Iraq and Afghanistan facing conditions that include addiction and PTSD.

### 1988

**Paul Auwaerter** became president of the Infectious Diseases Society of America in October. The Sherrilyn and Ken Fisher Professor of Medicine at Johns Hopkins, Paul has studied Lyme disease and other tick-borne diseases and clinical decision support using point-of-care information technology. In his role as IDSA president, he will continue the group's work in



Paul Auwaerter '88

advocating for new antimicrobial development, novel diagnostic tools, and recruitment of the best and the brightest to the field of infectious diseases.

### 1991

**Donald Lloyd-Jones**, senior associate dean for clinical and translational research and chair of



Donald Lloyd-Jones '91

preventive medicine at the Feinberg School of Medicine at Northwestern University, has been selected

to receive the 2017 Joseph Stokes III MD Award from the American Society for Preventive Cardiology for his achievements in preventive cardiology. At Northwestern, he is director of the Clinical and Translational Sciences Institute, the Eileen M. Foell Professor, and a professor of medicine in the Division of Cardiology.

### 1991

**Daniel S. Schechter** received the 2017 Norbert and Charlotte Rieger Psychodynamic Psychotherapy Award from the American Academy of Child and Adolescent Psychiatry and gave a presentation at the academy's 64th annual meeting in October in Washington, D.C. The award recognizes the best paper written by an academy member that uses a psychodynamic framework and presents either clinical material demonstrating the inner life of an infant, child, or adolescent or research material that promotes psychodynamic principles to illustrate the paper's idea or hypothesis.

### 1992

**Davoren Chick** has been named senior vice president of medical education for the American College of Physicians. She will be responsible for the development and publication of ACP's medical knowledge products and services, among other responsibilities. Board-certified in internal medicine, she has been a Fellow of ACP since 2005. She previously practiced primary care internal medicine at the University of Michigan, where she was associ-

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Email: [columbiamedicine@columbia.edu](mailto:columbiamedicine@columbia.edu)



Davoren Chick '92

ate professor in the Department of Internal Medicine and the Department of Learning Health Sciences.

## 1994

**Stuart M. Levine** has been named president and chief medical officer of MedStar Harbor Hospital in Baltimore. He also serves as senior vice president of MedStar



Stuart M. Levine '94

Health, a network of hospitals that includes MedStar Harbor, a 157-bed waterfront hospital. Stuart joined MedStar Health in 2010 as a board-certified rheumatologist at MedStar Good Samaritan Hospital and vice chairman of strategic growth and research in the Department of Medicine at MedStar Good Samaritan and MedStar Union Memorial hospitals. He is credited with conceiving, developing, and implementing several major initiatives, including a health

services research program, a new inpatient medical service structure, and a readmissions reduction effort. He was appointed vice president of medical affairs at MedStar Harbor Hospital in 2014 and in 2016 also became vice president of medical affairs at MedStar Franklin Square Medical Center. Before joining MedStar Health, Stuart was a faculty member at Johns Hopkins, where he trained and completed a rheumatology fellowship, and co-director of the Johns Hopkins Vasculitis Center. He is a fellow of the American College of Physicians and a member of the American College of Rheumatology, American Medical Association, American Association for Physician Leadership, and the American College of Healthcare Executives.

## 2002 PhD

**Ai Yamamoto**, assistant professor of neurology and of pathology & cell biology at P&S, received the Doctor Harold and Golden Lamport Research Award for clinical sciences at this year's graduation ceremony.

## 2003

**Salila Kurra** received the Charles W. Bohmfalk Award for pre-clinical years at this year's graduation ceremony. Salila is assistant professor of medicine at P&S.

## 2009

The latest collection of stories by **Jacob M. Appel** is described in this issue's Alumni in Print. The award-winning short story writer is also an attorney and a bioethicist.

## 2011

**Vinay Gupta** was named one of 40 Under 40 Leaders in Health by the National Minority Quality Forum and the US Congressional Black Caucus. The award honors influential young minority leaders who are making a difference in health care. Vin just completed a fellowship in pulmonary & critical care

medicine at Brigham & Women's Hospital/Harvard Medical School. He is a commissioned officer in the U.S. Air Force Medical Corps, where he serves as a fully trained critical care air transport physician. His primary research interests are health security and pandemic preparedness, and he serves as director of the Global Health Diplomacy Initiative at the Harvard Global Health Institute. His research has been published in the *New England Journal of Medicine*, *Lancet Global Health*, *BMJ*, and *Health Affairs*. He founded two health initiatives to serve the nation's most vulnerable populations: a latent tuberculosis treatment program to treat homeless patients in Seattle and a mobile food market program in eastern Massachusetts to address food insecurity. The initiatives have reached more than 1,000 patients. Vin also has an MSc degree in international relations from the University of Cambridge, which he attended as a Rotary Global Grant scholar, and in May received an MPA degree from Harvard's Kennedy School of Government as a Dean's Fellow.

## 2014

**Abdul El-Sayed**, former executive director of the Detroit Health Department, is running for governor of Michigan in 2018.



## Alumni in Three Generations

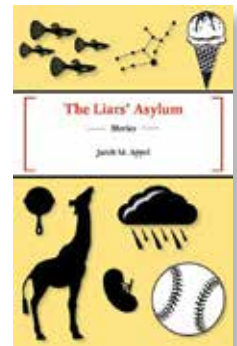
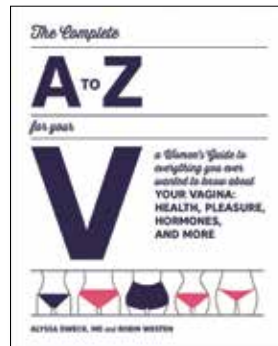
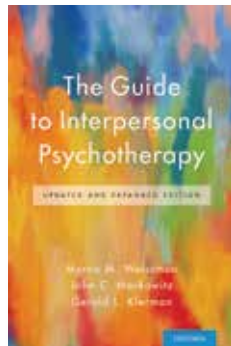
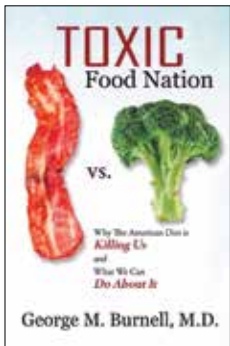
Three generations of P&S graduates posed at this year's commencement. From left are **Joshua Rosenthal '17** with his parents, **Margaret Fisher '83** and **Jonathan Rosenthal '83**, and his grandfather, **George Fisher '48**. They are part of a lineage of P&S graduates that goes back to the early 20th century. George Fisher's wife (and Joshua's grandmother), **Mary Stuart Blakely Fisher '48**, and Joshua's great-grandfather, **Stuart Banyar Blakely '1908**, are deceased.

## 2017

At this year's alumni reunion, **Ryan England** received the gold medal given to a graduate in recognition of interest in and devotion to the College of Physicians & Surgeons and its Alumni Association.



Ryan England '17 and family



# alumni *in print* By Bonita Eaton Enochs, Editor

**Toxic Food Nation: Why the American Diet Is Killing Us and What We Can Do About It**  
**George Burnell '57**  
*Outskirts Press, 2017*

Is toxic food the new tobacco? In his new book, Dr. Burnell examines the typical American diet: rich in processed foods, fat, sugar, salt, omega-6s, pesticides, hormones, antibiotics, and hundreds of untested chemicals. How harmful are these chemicals? According to Dr. Burnell, this diet can trigger chronic inflammation in the body and brain, which leads to heart disease, diabetes, obesity, Parkinson's disease, Alzheimer's disease, Crohn's disease, arthritis, anxiety, mood and behavior disorders, and cancer. Drawing from clinical and laboratory studies as well as the latest research from around the world, Dr. Burnell creates a highly practical program of simple dietary recommendations to prevent disease and heal threatening symptoms.

**The Guide to Interpersonal Psychotherapy**  
**John Markowitz '82**  
*Oxford University Press, 2018*

Since its introduction as a brief, empirically validated treatment for depression, interpersonal psychotherapy has broadened its scope and repertoire to include disorders of behavior and personality as well as disorders of mood. The new edition of this book, written by Dr. Markowitz

with Myrna M. Weissman, the Diane Goldman Professor of Epidemiology and Psychiatry at P&S, consolidates the revised 1984 manual with new applications and research results plus studies in process that show promise and an international resource exchange.

**The Complete A to Z to your V**  
**Alyssa Dweck '87**  
*Quarto Publishing Group, 2017*

In her new book, Dr. Dweck tells women of all ages what they need to know about their own unique health. The friendly and funny voice along with accessible illustrations make subjects that normally make people squirm easy and enjoyable to read about. Dr. Dweck "gives nothing but straightforward information without a political or religious slant or without pushing an agenda," wrote one reviewer. "If you're a parent with a female child, are an adult that would like a trustworthy source of information, or doctor looking for a unique way to educate patients, I really recommend this book."

**American Dream with an Exit Wound**  
**Dawn McGuire '87**  
*IF SF Publishing, 2017*

In this new poetry collection by Dr. McGuire, an award-winning poet and neurologist, returning soldiers bring "hazardous materials" home in their bodies and minds, making home increasingly a battleground of addiction and dis-

affection. The poems are inspired by her work with post 9/11 veterans who have returned from Iraq and Afghanistan and their various conditions, including addiction and PTSD. "My son is in the Army and this spoke to me. It is well done and demonstrates a depth of understanding for the sacrifices our soldiers have made—mental, physical, and spiritual," said a reviewer.

**The Liars' Asylum**  
**Jacob M. Appel '09**  
*Black Lawrence Press, 2017*

Dr. Appel's latest collection has eight short stories, among them "Bait and Switch," "Picklock in Oblivion," and "When Love Was an Angel's Kidney." The stories feature vivid characters, inventive settings, and writing that sparks with specificity. "There is not a single false note when it comes to Appel's characters and their intertwined lives," wrote Suzanne Greenberg, author of "Speed-Walk and Other Stories."

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

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● ALUMNI PROFILE

## Thomas R. Frieden'86: Outgoing Director of the CDC Reflects on His Time at the Helm

By Peter Wortsman



“Public health, like politics, is the art of the possible,” says Thomas R. Frieden, the outgoing director of the Centers for Disease Control and Prevention, America’s first line of defense against threats to the health of its people. A self-described “irrational optimist,” still trim and youthful at age 56, Dr. Frieden, who received both MD and MPH degrees from Columbia in 1986, is the second longest serving director in the history of the CDC.

“It certainly has been an exciting time,” he says of his tenure, 2009 to 2017, during which the Emergency Operations Center remained activated more than 90 percent of the time. Whether tackling outbreaks of such formidable microbial malefactors as H1N1, MERS and Ebola, stopping epidemics-in-the-making at home and abroad, confronting smoking and other key preventable causes of death, or convincing a recalcitrant Congress to allocate adequate funding to combat Zika, he has always held to the same basic credo: “Do the right thing, tell the truth, and things will come out okay.”

In an interview in January 2017 at his office on the CDC’s sprawling campus in Atlanta, he looked back on his eight years at the helm and considered the pressing health challenges ahead.

### Focus on Accountability

Among the photographs lining the wall along a corridor on the way to the director’s office are two images that immediately catch the eye. One presents an individual covered from head to foot in yellow protective gear being decontaminated after visiting an Ebola treatment unit in Monrovia, Liberia, with “TOM” scrawled in big bold letters on his hood. Another depicts a somber director touring a cemetery in Sierra Leone where safe and dignified burials are taking place. The photos sum up the depth of Dr. Frieden’s commitment to public health as a calling.

The son of a scientifically astute cardiologist, he recalls visiting his father in a nursing home toward the end of his father’s life. The younger Dr. Frieden had just been named New York City health commissioner, a post to which he was appointed by Mayor Michael Bloomberg and which he held from 2002 to 2009. “Dad,” he said, “I want to be the best health commissioner.” To which his father, who had committed his own life to evidence-based medicine before the notion had a name, promptly replied with what would be his last

words to his son: “How would you know?” The words have stuck with the son as a kind of medical mantra, a perennial call to accountability.

Ever since his first major foray into public health, from 1990 to 1992 as an epidemic intelligence service officer assigned by the CDC to New York City, where he documented the spread of multidrug-resistant tuberculosis—by closely following every case, he and his team helped cut the scourge of the dreaded disease by 80 percent—Dr. Frieden has tackled the big picture one patient at a time. Later applying the same hands-on and doggedly systematic approach in India, from 1996 to 2002 as a medical officer for tuberculosis control for the Southeast Asia Regional Office of the World Health Organization (on loan from the CDC), he and his team helped treat some 8 million patients, saving an estimated 1.4 million lives.

Called back to New York and sworn in January 2002 by Mayor Michael Bloomberg to head the NYC Department of Health and Mental Hygiene, Dr. Frieden studied the city’s health statistics the way an internist pores over his patient charts, on the lookout for significant data to stem preventable deaths. “We had 18,000 people die in the city last year,” he said in a 2005 interview, “about 10,000 of them from clearly preventable causes.” That was 10,000 too many fatalities for Dr. Frieden.

He initiated unprecedented health surveys to assess critical health conditions in the city, then released an ambitious “Take Care of New York” policy to improve health. With the report, which was based on verifiable data and had Mayor Bloomberg’s blessings, Dr. Frieden took the cause of preventable deaths as a public health call to arms. Among other bold initiatives, he set up a system to monitor tobacco use, pushed for an increase in the tobacco tax, produced aggressive anti-tobacco ads, and promoted and ultimately helped pass the Smoke Free Air Act of 2002, barring smoking from all work places in the city, including bars and restaurants. Based on a CDC report in 2007, such aggressive tactics paid off, leading to a significant reduction in the number of smokers, including an almost 50 percent decline in teen smokers. Under his aegis, the Health Department also launched an attack against another preventable cause of death by banning NYC restaurants from cooking with trans fats, a significant aggravating factor in heart disease.

The New York Observer dubbed him “a rare visionary.” Mayor Bloomberg pulled out all the stops in his assessment of his health commissioner’s performance. “Hiring Tom Frieden was one of the best decisions I’ve ever

made. He is unafraid of big ideas, powerful interest groups, or impossible challenges,” Time magazine quoted the former mayor when the magazine included Dr. Frieden in its 2015 roster of “The 100 Most Influential People.”

### Confronting H1N1 Influenza, New CDC Director Hit the Ground Running

In 2009, President Barack Obama named Dr. Frieden the 16th director of the Centers for Disease Control and Prevention. The new director soberly assessed and led the country’s response to an impending global H1N1 influenza pandemic. “We’re faced with a situation of uncertainty,” he told reporters three days after officially assuming his post on June 8, 2009, in the first of many briefings, stating the facts while reassuring the public that “this is nowhere near the severity of the 1918 pandemic.”

After considering the data and reviewing established recommendations that favored the young as recipients of a monovalent flu vaccine, he noted a significant health threat to 50- to 64-year-olds and modified the proposed vaccine policy to include that age group among the targeted cohort of recipients.

Dr. Frieden raised hackles at one press conference in which he was challenged to justify the delay in vaccine production contracted for by another part of the federal government. “The vaccine is grown in eggs,” he calmly explained, “and even if you yell at the eggs, it won’t grow any faster. We’re not going to have enough vaccine when people want it. And then we’ll have a lot left over after the peak of the outbreak.” Reality check notwithstanding, and despite the delayed vaccine production, the CDC helped prevent an estimated 1 million cases, 18,000 hospitalizations, and at least 600 deaths. And though skeptics in retrospect accused the director of crying wolf about the gravity of the pandemic, Dr. Frieden soberly responds that “there were 1,500 fatalities among children and might well have been many more had we not taken appropriate action.”

### “We’re Most Successful When We’re Most Invisible”

“Remember that big outbreak of MERS in the U.S.? No, because it didn’t happen. We stopped it,” he recalls with an unmistakable feeling of pride, referring to Middle East Respiratory Syndrome coronavirus, a potentially life-threatening illness first reported in Saudi Arabia in 2012. Two isolated cases of infected travelers from Riyadh were diagnosed and successfully treated in the United States in 2014 and the CDC helped control outbreaks in the Middle East and elsewhere. “It could have been a big outbreak,” he adds, “if we didn’t have diagnostics and we hadn’t educated doctors and worked with the health care system to be ready.”

“I sometimes get asked: Why should the CDC work on global health? Shouldn’t we rely on the World Health Organization for that?” Dr. Frieden poses the question. To which he promptly replies: “Well, why do we need the Department of Defense if there are United Nations peacekeepers? The CDC works 24/7 to protect Americans from threats, whether in this country or anywhere in the world, whether those threats are infectious or environmental, natural or man-made.”

In today’s global environment, there is no such thing as an isolated incident. It’s only a matter of time until microbes and other serious health risks cross borders. The least costly defense in lives and dollars saved is preparedness. “When you strengthen the systems that are in place,

the laboratories, the doctors in the field, the monitoring, and the rapid response abilities,” Dr. Frieden says, “you can stop outbreaks *there* so that we don’t have to fight them *here*. It’s doing well by doing good. Public health really is a best buy.”

He prizes the efficacy of established preventive efforts, such as the Field Epidemiology Training Program, which comprises some 55 working operations in 72 countries. It’s a network of programs started by the CDC, many of which now function independently. This effort, greatly enhanced under his watch, has helped train some 3,000 local disease detectives to date, “so that they can do what we do.” Adds Dr. Frieden, “It may well be the single most important program we run globally.” Nigeria, for instance, thanks to the hard work and thoroughness of local CDC-trained field workers, is practically polio free, with the exception of a small area controlled by Boko Haram.

“We’re most successful when we’re most invisible,” the director avows. Inevitably, however, some dire health conditions make the news.

### Ebola: “On the Edge of an Abyss”

“The Ebola outbreak was the most stressful and challenging threat that I’ve dealt with as CDC director,” Dr. Frieden says. “*Not* Ebola in the U.S.,” he insists, much as the public health threat stateside was whipped up to a fever pitch by some politicians and members of the media. “We always said there could be some cases and it would be controlled, and that’s exactly what happened.”

It was the situation in Africa, where the CDC sent some 1,400 trained personnel and to which he made four trips in the course of the epidemic, that really worried him. “I visited one Ebola hospital where there were 60 corpses of people who’d died there that couldn’t be removed, so the living had to lie next to the dead. There was one doctor for 120 patients, not enough food, not enough water. It was horrific, really an apocalyptic type of situation. But that wasn’t what frightened me the most.

“When one infected individual flew from Liberia to Lagos, Nigeria, with a population of more than 20 million,” he recalls with a chill, “it could have easily surged into a global catastrophe.”

Following initial incompetent handling, a new Nigerian incident manager was put in charge and members of the CDC-trained Nigerian team, which had helped stop polio, leaped into action, building an Ebola treatment unit in 14 days. Identifying 894 contacts, they performed 17,000 home visits, found 43 people with suspected Ebola, and diagnosed 19 cases. The same painstaking process was repeated when an infected individual traveled from Lagos to Port Harcourt.

Dr. Frieden shakes his head at the memory. You can almost hear his heart beating. “Those three or four days when we were transitioning from not-competent to excellent management, those were the most stressful days of my eight years as director of the CDC. We knew we were on the edge of an abyss. If we didn’t stop it there, it would have spread all over Nigeria, all over Africa, for months and possibly years, and could have become a global catastrophe.”

Ultimately, the system functioned. “We got one laboratory up and running in Sierra Leone that worked for 421 days without a break. They set up in the field, high-throughput robotics, and performed 27,000 Ebola tests. Every worker risked infection and death.” Dr. Frieden adds with unabashed awe: “The commitment of our staff and trainees is truly inspiring!”

### Zika, a Looming Threat

While the world could declare victory in the battle with Ebola, another insidious threat of infectious disease still looms elsewhere in the *Aedes aegypti* mosquito. “Zika has not been the media sensation that Ebola was, but it has been and continues to be an enormous challenge,” Dr. Frieden says, remembering another bone-chilling moment in his tenure when the CDC’s chief pathologist, Dr. Sherif Zaki, called him in to view stained neural tissue of infants from Brazil who had died of severe malformations. “We were able to see the Zika virus invading the neural tissue of these infants. It was really horrific. Two days later we issued a travel warning, telling pregnant women not to go to areas where Zika was spreading.”

The CDC kicked into action, engaging some 2,000 personnel in deployments to affected areas. They created a test, got it approved, and produced more than 1 million test kits.

“We took action and made a recommendation when the data were strong enough. We established an unprecedented pregnancy registry to track pregnant women with Zika in the U.S. and its territories. We recommended a modern strategy of mosquito control using ultra-low volumes of pesticide in targeted areas in Florida. We identified sexual transmission of the disease and determined the linkage to Guillain-Barré syndrome. But there’s still a lot we don’t know.”

Unfortunately, adequate funding was not forthcoming. Dr. Frieden offers a sober assessment: “The main threat is to pregnant women and there aren’t any pregnant women in Congress. And that threat is six or seven months in the future, and Congress usually thinks a week or two in the future.” His successor will bear the burden of tackling Zika. (See related story on P&S Zika research in P&S News.)

### Smoking, Obesity, Hypertension, and Other Battles

While forestalling or quelling epidemics at home and abroad may have been the most dramatic of his tasks, the silent killers concerned him most in his day-to-day operations. Hard-hitting anti-tobacco ads produced by the CDC in its “Tips from Former Smokers” campaign directly influenced hundreds of thousands of Americans to stop smoking. Dr. Frieden likes to cite the assessment of a former CDC director, Bill Foege: “Public health is at its best when we see, and help others see, the faces and the lives behind the numbers.”

Obesity is another pressing issue among the top of CDC’s priorities. “We don’t have definitive evidence of what has caused the obesity epidemic in America,” Dr. Frieden says, “but we do know that we’re consuming more calories than we’re burning.” His pragmatic approach has been to focus on achievable objectives. Acknowledging that “we’re much more likely to be able to prevent childhood obesity than to reverse adult obesity,” he used the CDC to promote childhood programs at the national and state level. Consequently 19 states showed decreases in childhood obesity for the first time. And despite stiff opposition from vested interests in the soft drink industry—Atlanta is Coca-Cola’s home base—he pushed for government-mandated remedies. “It’s a matter of public record that I proposed a one penny an ounce soda tax back in 2009 as being quite possibly the single most effective thing to reduce the obesity epidemic.”

Dr. Frieden has written about what he calls “a health pyramid,” addressing “how we can impact behavior at different levels of society.” He identified



President Obama with Dr. Frieden at a press conference to discuss Ebola

the need to reduce teen pregnancy as a factor in the inter-generational transmission of poverty, calling that effort among the key battles outside traditional health care that could succeed in saving lives and money. He is pleased to report that “we now have the lowest teen pregnancy rates ever in the U.S.”

Another daunting priority he cited is hypertension control. “If you want to do one thing right in the health care system, it would be to control blood pressure. That can save more lives across the board than any other measure.”

Dr. Frieden also has spoken out about the need for what he calls “a reciprocal revolution” to include improving the country’s mental health in the mission of the CDC. “Depression,” he says, “remains under-recognized as a major cause of ill health.”

The current epidemic in overdose deaths from opioids is another pressing concern. Prescription painkillers are a major part of the problem. Under Dr. Frieden’s direction, the CDC issued new guidelines for prescribing opioid medications for chronic pain.

### “Developing the Capacity of Society to Address its Own Problems”

Dr. Frieden is philosophically committed to systems that foster home-grown solutions to health concerns. “I like to develop the capacity of society to address its own problems. Public health is the organized activities of society to be healthier.”

Among the programs he had a hand in creating, and of which he is the proudest, is the Public Health Associates Program, in which the CDC recruits, trains, and sends out to state health departments a cohort of what he calls “the next generation of public health leaders.” Between 3,000 and 4,000 applicants with bachelor’s or master’s degrees vie annually for 200 positions. “We send them out to states to be in the front lines of public health. They will rejuvenate, diversify, and make even more practical our ability to protect the health of the nation. They are the future.”

Self-help is part of his own personal regimen as well. In addition to eating healthy and bicycling regularly, several times a week he plays squash with friends, a vigorous, aggressive game he first took up as a student at P&S which he describes, tongue-in-cheek, as his “homicide prevention program.”

### What’s Next?

As per protocol, Dr. Frieden submitted his resignation effective Jan. 20, 2017, when the new presidential administration began. So what’s next?

“Being a native New Yorker, I like to quote the great philosopher Yogi Berra whenever I can: ‘It’s tough to make predictions, especially about the future.’” Pressed to be a bit more specific, he allows: “I’ve made every career decision in my life by answering the simple question: How can I save the most lives?”

**FACULTY**

**John H. Bryant, MD**, former director of the School of Public Health at Columbia, died July 5, 2017. After graduating from P&S in 1953, Dr. Bryant completed internship and residency at Presbyterian Hospital, then pursued research at the NIH and the Max Planck Institute for Biochemistry in Munich, Germany, and completed a fellowship in hematology at Washington University. He worked at the University of Vermont, at the Rockefeller Foundation, and in Thailand before returning to P&S in 1971 to lead the public health school when it was still part of the Faculty of Medicine, for which he served as associate dean. He established the Center for Community Health Development and interdisciplinary programs with Columbia's business and social work schools. He left Columbia in 1978 and served in the Department of Health and Human Services, participating in several World Health Organization activities before becoming founding chairman of the Department of Community Health Services at the new Aga Khan University in Pakistan.

**Roger A. MacKinnon, MD**, professor emeritus of clinical psychiatry, died July 24, 2017. He was the first full-

time director of the Center for Psychoanalytic Training and Research, where he re-emphasized the importance of research. He appointed an advisory panel to help with scientific methodology and practical guidance in developing reliable research instruments. A 1950 graduate of P&S, he trained in psychiatry at the New York State Psychiatric Institute and earned a certificate from the Center for Psychoanalytic Training and Research. He joined the P&S faculty in 1957.

**Other Faculty Deaths**

**Morton Aronson, MD**, associate clinical professor of psychiatry, died June 22, 2017.

**Walter Berdon, MD**, professor emeritus of pediatric radiology (in radiology and pediatrics), died Aug. 6, 2017.

**Ruth Dickinson**, former director of the Program in Physical Therapy, died Jan. 24, 2017.

**James F. Hammill, MD**, professor emeritus of clinical neurology, died June 21, 2017.

**Raphael Jewelewicz, MD**, retired faculty member in obstetrics & gynecology, died July 21, 2017.

**Ronald Lewis Katz, MD**, former professor of anesthesiology, died May 15, 2017.

**Richard J. Kitz, MD**, former associate professor of anesthesiology, died Sept. 19, 2017.

**Raymond Raskin, MD**, former member of the psychiatry faculty, died April 8, 2017.

**Gail Sorrel-Mosk, MD**, assistant professor of radiology at CUMC, died Sept. 19, 2017.

**Virginia Warner, DrPH**, associate in clinical psychiatry in the Division of Epidemiology at the New York State Psychiatric Institute and the Department of Psychiatry, died June 10, 2017.

**Walter A. Wichern Jr., MD**, professor emeritus of clinical surgery, died March 27, 2017.

**John A. Wood, MD**, retired clinical professor of medicine, died Sept. 17, 2017.

**ALUMNI  
1943M**

**Elizabeth Caldwell Hastings** died Feb. 18, 2017, at age 100. She practiced for many years as a pediatrician in the County of Los Angeles



Roger MacKinnon '50



Charles B. Terhune '47

clinics. Preceded in death by her husband, T. Newlin Hastings'43M, she is survived by two daughters, two sons, nine grandchildren, and five great-grandchildren.

**1946**

**Bonta Hiscoe**, a retired surgeon, died June 10, 2017. He was 94. Dr. Hiscoe served as a lieutenant in the U.S. Navy V-12 Program during World War II, based at Great Lakes Naval Training Station. After pursuing a general medical practice in Coal Mountain, W.Va., with his wife, Helen Hiscoe, PhD, he was inspired to write a book, "Appalachian Passage." He later moved to East Lansing, Mich., where he pursued a private general and thoracic surgical practice and served as chief of surgery at Sparrow Hospital. Retiring from the practice of surgery at age 57, he shifted to medical administration, serving for another three decades as medical director of Health Central, an HMO. He also served as medical examiner for Ingham County and as dean of the College of Human Medicine at Michigan State University. Dr. Hiscoe was honored with a presidential citation from the Michigan State Medical Society and the Key Award for meritorious

service from the Michigan Hospital Association. Preceded in death by his wife, Helen, and a daughter, he is survived by three daughters and two grandsons.

**1947**

**Charles B. "Bun" Terhune**, a pediatrician who became a child psychoanalyst, died April 3, 2015. Dr. Terhune, who served as a captain in the U.S. Air Force, joined a group pediatric practice, Summit Medical Group in Summit, N.J. When he retired from his pediatric practice in 1975, he joined his wife, Ruth, in a joint psychoanalytic practice and authored a journal on the psychoanalytic study of children. A past treasurer of the New Jersey chapter of the American Academy of Child Psychiatry, Dr. Terhune served as chief of the pediatrics service at Overlook Hospital in Summit, N.J., from 1965 to 1971. Preceded in death by his first wife, Phyllis, he is survived by his second wife, Ruth, two daughters, two sons, nine grandchildren, and four great-grandchildren.

**Lawrence L. Weed**, professor of medicine emeritus at the University of Vermont, died June 3, 2017, at age 93. Following his medical training Dr. Weed pursued basic science research in

biochemistry and microbial genetics at Duke University, the University of Pennsylvania, and the U.S. Army Medical Service Graduate School at Walter Reed Hospital in Washington, D.C. He taught on the faculty in the pharmacology and medicine departments at Yale University, where he did research in microbial genetics. Moving to the Eastern Maine General Hospital, in Bangor, Maine, he served as director of medical education and developed standards of data organization in medical records. In 1960 he joined the faculty of the Department of Medicine at Case Western Reserve University in Cleveland, Ohio, later taking on the additional responsibilities of director of the outpatient clinics at Cleveland Metropolitan General Hospital. He wrote five books, including the landmark work, "Medical Records, Medical Education and Patient Care." Shifting his base of operations in 1969 to the University of Vermont, he served as professor of community medicine and headed the PROMIS Laboratory. In 1981 he left academia to create PKC Corp., a company dedicated to developing software tools to link patient data and medical information. His honors

included the 1995 Gustav O. Lienhard Award for Advancement of Health Care from the Institute of Medicine. His work influenced the strategic planning of the National Library of Medicine. His extra-medical passion was classical music, and he sang in the Cleveland Orchestra Chorus. Preceded in death by his wife, Dr. Laura Brooks Weed, he is survived by a daughter, four sons, two grandchildren, and two step-grandchildren.

#### **1950**

**Gordon Allen**, a retired geneticist, died June 13, 2017. Dr. Allen served in the U.S. Air Force during World War II. As an officer with the U.S. Public Health Service, he pursued research in human genetics at the National Institute of Mental Health. In 1980 he was honored with the U.S. Public Health Service Commissioned Officer Award. In his free time he volunteered to provide health care to the homeless and tutor students preparing for their GED test. He also grafted nut trees and raised moths and butterflies. He once reflected on an alumni questionnaire how "genetics was a backwater of medicine in 1955, but now pervades nearly all of medicine." Preceded in death by

his wife, Jane, he is survived by a daughter, three sons, three grandchildren, and five great-grandchildren.

#### **1951**

**Walter S. Wood**, a retired internist specializing in infectious diseases, died Feb. 23, 2017. A U.S. Army Air Corps veteran, Dr. Wood served in the 868 Bomb Squadron 13th Bomber Command during World War II and saw combat in the South Pacific. He was awarded the Asiatic Pacific Service Medal with five stars. Dr. Wood taught at the University of Illinois and served as director of the Division of Infectious Disease at Cook County Hospital before moving to Loyola University. He was professor emeritus and former chair of the Department of Community and Family Medicine, professor emeritus of medicine, former chief of the Section of Infectious Diseases, then chief of the Section of General Internal Medicine at Loyola University Stritch School of Medicine. Dr. Wood was a founding member of the group Access to Care, and he helped develop and served as medical director of the Southwest Suburban Center on Aging Medical Clinic in La Grange, Ill. In 1990 he received the Stritch Award,

the highest honor bestowed on a Loyola University physician for dedication and commitment to medicine. Survivors include his wife, Mary, a daughter, a son, and three grandchildren.

#### **1952**

**Leland M. White**, a retired internist who specialized in geriatrics, died April 7, 2017. Dr. White served in the U.S. Army and was based at field hospitals in the UK during World War II. He received the Most Outstanding Physician Award for Community Service at the Maine Medical Association meeting in 1983. He is survived by his wife, Carol, and four daughters.

#### **1954**

**William F. Bernart**, a retired internist, died April 6, 2017. Dr. Bernart served in the U.S. Navy, based at the Alameda Naval Air Station in Oakland, Calif. Co-founding partner of the Internal Medicine Group (now Riverside Eastern Shore Physicians and Surgeons) in Nassawadox, Va., he served for many years as an attending at the Northampton-Accomack Memorial Hospital (now Riverside Shore Memorial Hospital); he also served as a member of the Board of Trustees for the hospital, which honored him by nam-

ing its entrance road the William F. Bernart Circle. Dr. Bernart taught in the Department of Medicine at the Community Hospital Program of the Medical College of Virginia. Outside of medicine, he was a long-time communicant and lay reader at Hungars Episcopal Church in Bridgetown, Va., was active with the local American Heart Association chapter, and served a term as president and board member of the Eastern Shore of Virginia Habitat for Humanity. The Habitat House was renamed in his honor and that of his wife, Cynthia, who survives him. A committed community member, he and his wife removed trash along the local roadways. In 1990 he was honored as Outstanding Citizen of the Year by the Eastern Shore Chamber of Commerce. Other survivors include a daughter, four sons, and nine grandchildren.

#### **1955**

**Robert T.E. Bishop**, a retired internist, died April 18, 2017. He served in the U.S. Army, based in San Antonio, Texas, and later moved to Dallas, where he was medical director for New York Life Insurance before pursuing a private internal medicine practice. Upon his retirement he continued to provide





medical and risk assessment advice for insurance companies. In his free time he played the clarinet and sang for more than 40 years in the choir at St. Michael and All Angels Episcopal Church. He is survived by his wife, Carol, six daughters, two sons, six grandchildren, and one great-grandchild.

**Thorpe M. Kelly**, a retired obstetrician/gynecologist, died April 17, 2017, of congestive heart failure. Dr. Kelly served as a doctor in the U.S. Navy, based in Sasebo, Japan, during the Korean War. He pursued a private ob/gyn practice for more than 40 years, delivering more than 10,000 babies. Dr. Kelly was one of the founders of Physicians Insurance, now the largest provider of medical malpractice insurance in Washington state. A scoutmaster in his free time, he led 50-mile hikes. Surviving him are his wife, Lucinda, a daughter, two sons, and five grandchildren.

#### 1956

**Robert S. Hirsch**, a retired hematologist and general oncologist, died April 8, 2017. He served in the U.S. Army. A member of the clinical faculty in the Department of Medicine at

the University of Arizona College of Medicine, where he was honored with the school's 1994 Distinguished Service in Medical Education Award, Dr. Hirsch was co-director of Advanced Clinical Therapies in Tucson, Ariz., retiring from practice in 1996. He later served as a medical consultant for Social Security's disability determination process. Survivors include his wife, Harriet, a daughter, a son, and four grandchildren.

**Robert Maslansky**, a retired internist and pioneer in methadone maintenance and substance abuse, died June 9, 2017, of a degenerative neuromuscular disease. Dr. Maslansky served as a captain in the Army Medical Corps. In 1968 he founded Minnesota's first methadone clinic, later serving as director of the substance abuse program at Bellevue-NYU, where he was clinical professor of medicine. Author of 23 peer-reviewed papers, Dr. Maslansky was proud of a landmark paper he co-authored on methadone's effects on cardiomyopathy. A fellow of the American College of Physicians, he received the 2005 Nyswander Trophy Award of the

American Association for the Treatment of Opiate Dependence. He is survived by his wife, Amelie, a daughter, three sons, and six grandchildren.

#### 1959

Child psychiatrist **Paul H. Wender** died July 6, 2016. He served as a senior assistant surgeon at the National Institute of Mental Health. Distinguished Professor of Psychiatry at the University of Utah, where he was also director of psychiatric research, Dr. Wender was a past president of the Psychiatric Research Society. He was best known for pioneering studies on the role of genetics in the etiology of schizophrenia. His description of and work on attention deficit disorder led to widespread recognition, clarification of neurobiologic aspects, and research on appropriate medical and pharmacological treatments. He also authored popular books for nonprofessionals on the conundrums of ADHD. He is survived by his wife, Dr. Frances Burger, three daughters, and a stepson.

#### 1961

**William Schwartzman**, a retired psychiatrist, died

April 25, 2017, at age 80. As a young man he was involved with the establishment of Esalen in Big Sur, Calif., an alternative education center based on humanistic principles. Dr. Schwartzman pursued a private practice in adult and child psychiatry in San Francisco. He was affiliated with the Bay Area-Langley Porter Neuropsychiatric Institute, SF General Hospital, Mount Zion Hospital, and Napa State Hospital. Upon his retirement he worked with the disadvantaged in community clinics. He also worked to promote improvements in the delivery of mental health services and fought against unfair immigration policies. He is survived by two daughters.

#### 1962

**Howard A. Fox**, retired chair of the Department of Pediatrics and director of neonatology at Monmouth Medical Center in Monmouth, N.J., died May 15, 2017. Dr. Fox served as a lieutenant commander in the U.S. Public Health Service Commissioned Corps, stationed at the Centers for Disease Control and Prevention in Atlanta. He later joined the faculty at Mount Sinai in New York, where he is credited with developing the Jaystork Program for the care of

sick newborns, before joining the staff at Monmouth Medical Center. Following his retirement he studied art history at Rutgers University and volunteered in the Department of Drawings and Prints at the Metropolitan Museum of Art. Survivors include his wife, Barbara, two daughters, and two grandchildren.

**Richard S. McCray**, a pioneer in the development of gastrointestinal endoscopy, died March 12, 2017. Clinical professor of medicine at P&S, Dr. McCray demonstrated the first fiberoptic endoscope in Boston and subsequently introduced endoscopy to New York City. Founding president of the New York Society for Gastrointestinal Endoscopy, he was the recipient of that group's Distinguished Educator Award. Survivors include his wife, Carol, two daughters, a son, and three grandchildren.

**Frank Rees Smith**, a longtime professor of clinical medicine at P&S, died Jan. 16, 2017. His research was devoted to cholesterol metabolism and the effects of endocrine disorders on taste. After moving to Houston, he served as medical director in the Department of Medical and

Environmental Affairs at Exxon Chemical, overseeing Exxon's Health Information System in tracking the health of the company's employees worldwide. In his free time he was an avid birdwatcher and horticulturist and member of the Cape Cod Wildflower Society and the Polly Hill Arboretum on Martha's Vineyard, where he and his family spent their summers. Also a wine connoisseur, Dr. Smith was elected to knighthood in La Confrérie des Chevaliers du Tastevin in Burgundy, France. He is survived by his wife, Gwyneth, two daughters, a son, and nine grandchildren.

#### **1970 MSD**

**Mahlon Van Rensselaer Freeman** died March 19, 2017. Right out of high school he joined the U.S. Marine Corps Reserve. He spent more than two decades pursuing research in obstetrics/gynecology at the Armed Forces Institute of Pathology and Walter Reed Army Medical Center, where he served as director of education. He also was liaison for the Surgeon General of the Army to the NIH Study Section on Human Embryology and Development; professor of medical genetics at the United Services

University of the Health Sciences; and chairman of the Scientific Exhibits Committee, Armed Forces District, American College of Obstetricians and Gynecologists. Retiring from the Army in 1978, Dr. Freeman became a medical geneticist with the genetic screening and counseling service of the Texas Department of Mental Health and Mental Retardation. He subsequently helped found North Texas Genetic Services in Denton, Texas. His many teaching and administrative responsibilities included serving on the Blue Ribbon Panel of Flow Hospital, lecturing on Medicare fraud and abuse through the Senior Medicare Patrol with the Retired and Senior Volunteer Program, and teaching at the Emeritus College of the University of North Texas. He is survived by his wife, Marcia, four children, and nine grandchildren.

#### **1972 PhD**

**Mark Wainberg**, a noted HIV/AIDS researcher, drowned April 11, 2017, while swimming in Florida. At the time of his death, he was professor of medicine, pediatrics, and microbiology & immunology at McGill University in Montreal,

director of McGill's AIDS Center, and head of HIV/AIDS research at the Lady Davis Institute for Medical Research. While studying the properties of a new antiviral drug called 3TC, or Lamivudine, Dr. Wainberg discovered its effectiveness against HIV and it soon became, and still remains, part of the AIDS cocktail to treat the disease. He also was known for multiple contributions in the field of HIV drug resistance, and he became an activist to promote greater access to AIDS/HIV treatment. He was director of the Lady Davis Institute at the Jewish General Hospital from 2000 to 2009 and served as president of the International AIDS Society from 1998 to 2000.

#### **1973**

**Steven J. Collins**, a professor of medicine at the University of Washington in Seattle, best known for his research in the molecular genetics of myeloid leukemias, died May 25, 2017, of gastrinoma, a malignant pancreatic neuroendocrine tumor. He was 69. Dr. Collins served for more than 30 years as director of the Molecular Medicine Division at the Fred Hutchinson Cancer Research Center in Seattle. A committed and imaginative researcher, he

was, according to a colleague, Dr. Fred Appelbaum, struck early on in his career by the idea that "you could cause a leukemia cell to differentiate and use drugs that were nontoxic to treat it." That insight helped lay the groundwork for effective retinoic acid therapies for acute promyelocytic leukemia. Before then, researchers opted for toxic agents that killed the immature cells. "Everyone thought about killing the cell, not inducing the cell to grow up," said Dr. Appelbaum. Dr. Collins' realization constituted a new way of thinking about cancer cells. Upon learning of his own diagnosis of gastrinoma, he researched the disease and participated in an experimental treatment that gave him several years of remission. Outside the lab he was a competitive player of tennis and golf and loved to take long bicycle rides with colleagues and friends. Dr. Collins is survived by his wife, Kathy, and three sons.

#### **1974**

**John F. Hagaman**, a cardiologist in group practice in Princeton, N.J., died March 6, 2017. Dr. Hagaman taught on the clinical faculty in the Department of Medicine at the University of Medicine and Dentistry of New Jersey-Rutgers Medical School.

He is survived by his wife, Andrea, and two sons.

#### **1976**

**Harry Jay Marshall**, a pediatrician, died June 18, 2017. Before attending medical school he worked as a specialist in the Space Science and Engineering Department of the University of Wisconsin in Madison. He subsequently served in the U.S. Army Reserves. He pursued a pediatric practice, first at the Gundersen Clinic in La Crosse, Wis., and later at Mound Medical Clinic in Chanhassen and Southlake Pediatrics in Minnetonka. He is survived by two daughters.

#### **1978**

Interventional cardiologist **Michael B. Kesselbrenner** died of a glioblastoma Feb. 24, 2017. He was 67. As a medical student he came up with the idea of the Super Night celebration the night before Match Day, when students wait with bated breath to learn where they will be pursuing their training. It has since become a cherished P&S tradition. He had a private practice in northern New Jersey and served on the clinical faculty of the Department of Medicine at P&S. He is survived by his life partner, Leslie Golub, two daughters, four sons, and a grandchild.

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## Centennial: Women at P&S

**P**&S was an all-male medical school for 150 years, but in the fall of 1917, 11 women began their studies at P&S. This photo shows some of the women in the class, but not the one woman who made it possible for the other 10 women—and the thousands who followed—to study medicine at Columbia. Gulli Lindh was a Barnard College senior who had always wanted to be a doctor when she and Barnard Dean Virginia Gildersleeve asked P&S Dean Samuel Lambert to consider admitting women. He said no during several visits they made to his office but finally relented—on one condition: The women had to raise \$50,000 so the school could build bathroom facilities and locker rooms for women.

Gulli Lindh Muller (she married during medical school) graduated first in her class in 1921. She trained at Presbyterian Hospital—she and another woman were the first women to intern at the hospital, then located on 70th Street—and briefly served on the P&S faculty before relocating to Massachusetts, where she conducted research at Thorndike Memorial Laboratory, a Harvard unit at Boston City Hospital. She was the only female doctor there. This photo, says Archivist Stephen Novak, was one of several photos taken of the class that fall to help faculty match faces and names. The class began with 213 members but was down to 162 by the next year (seven of the original 11 women advanced to the second year).