

Columbia Medicine

Columbia University Vagelos College of Physicians & Surgeons

FALL/WINTER 2018

Teaching the Teachers

Metro area teachers and
hands-on science

Hidden Epidemic

Nonalcoholic fatty liver
disease in young and old



BREAKING OUT

NEW WAYS TO HALT
THE OPIOID EPIDEMIC



JORG MEYER

● FROM THE DEAN

Dear Readers,

This past year has been an extraordinary time for our medical school, and what I have said on these pages in previous issues and in many venues is worth repeating. We started 2017-18 as the College of Physicians and Surgeons at Columbia University Medical Center, with two Nobel Prize winners on our active faculty, but we ended the year as the Vagelos College of Physicians and Surgeons—thanks to a new gift of \$250 million from Roy and Diana Vagelos (bringing their total giving to more than \$300 million)—at the Columbia University Irving Medical Center—thanks to an estate gift of more than \$300 million from the late Herbert and Florence Irving (bringing their total giving to Columbia and NewYork-Presbyterian to more than \$900 million) and with three active Nobel Prize winners when Joachim Frank joined Eric Kandel and Richard Axel as recipients of this highest scientific award.

The best of 2018 has touched all of our missions. In education, we eliminated need-based student loans thanks to the generosity of Roy and Diana Vagelos as well as numerous alumni, faculty, and friends who added more than \$25 million in matching funds above and beyond Roy and Diana's \$150 million for this purpose. Although the new Class of 2022, which entered VP&S in August, will be the first to receive four full years of this new benefit, each of our classes will receive the benefit for their remaining years with us. Generations of students will benefit from the generosity of so many who followed the inspirational example set by Dr. and Mrs. Vagelos, and we were proud to rename our medical school to honor them in perpetuity.

We also celebrated the 25-year anniversary of the Arnold P. Gold White Coat Ceremony by honoring the memory and legacy

of Dr. Gold and his commitment to emphasizing humanism in medical education and patient care.

In research, our faculty received 16 percent more research grant dollars from the National Institutes of Health than last year, and this \$57 million absolute one-year increase was the largest ever received by any medical school for actual research projects. A remarkable number of faculty members—124—received government funding of \$2 million or more since Fiscal Year 2018 began.

In patient care, we have continued to grow our programs at an annual, compounded rate of 6 percent over the past five years, a truly exceptional rate. And in collaboration with our partner, NewYork-Presbyterian, we are the only hospital to achieve statistically better mortality rates, for each of the past three years, for the six major diagnoses—a testament to the superlative care provided by our physicians.

If any one of these things—Nobel Prize, naming gifts, the ability to help our graduates pursue careers free of worries about medical school debt, the increase in NIH research funding, the remarkable clinical growth and mortality statistics—had happened this year, we would have called it a great year. With all of these things happening over the past year, we say it is what Columbia does and what Columbia is.

Thank you for all the ways you have made the Vagelos College of Physicians and Surgeons even better this year.

Wishing you all the best in 2019,

Lee Goldman, MD, Dean
lgoldman@columbia.edu

in this Issue

departments ——— features

- 2 **Letters**
- 3 **Reader Contributions**
- 5 **VP&S News**
- 10 **Clinical Advances**
 - Collaboration Helps Patients Who Have Genetic Epilepsies
 - Where Runners Go to Improve
 - Mothers Center Focuses on Outcomes for Both Mother and Child
- 24 **Alumni News & Notes**
 - Profile: Gerald Thomson'96 (Hon)
- 38 **In Memoriam**
 - Faculty and alumni who have died



A Cascade of Care: Clinicians and Educators Confront the Opioid Epidemic

By Sharon Tregaskis

Less than 20 out of 100 people with opioid use disorder receive treatment of any kind, and still fewer receive medication-assisted treatment even though it has proved effective in directly treating addiction and addressing related problems. Part two of our look at the opioid epidemic shows how Columbia experts are seeking solutions while preparing the next generation of caregivers.



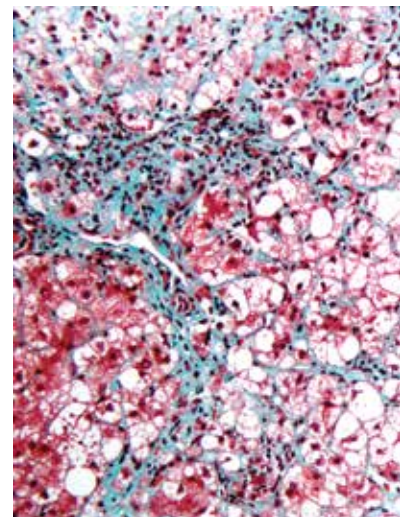
5

18

Fat: The Menace Behind This Generation's Liver Disease

By Alan Dove

Nonalcoholic fatty liver disease is an escalating global public health crisis—an estimated 25 percent of the world's population is affected—and Columbia clinicians and researchers are part of a multidisciplinary team taking it on.



→ See more online at www.columbiamedicinemagazine.org:

- Graduation 2018's faculty and student awards
- Awarding of posthumous MD degree to David Kearney McDonogh, who was denied a degree in the 1800s because of his race

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

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Yvonne Thornton

During my career in medicine, I have always been fascinated with how often recurrent themes are played out. I am a 1968 graduate of Bucknell University in Lewisburg, Pa. I was a member of one of the fraternities on that campus, and we had frequent weekend parties with various bands from the local area. One of our favorite bands was the "Thornton Sisters,"

who were a great singing and instrumental group. They were invited back several times during my undergraduate years.

I graduated from P&S in '78 and completed my internal medicine residency and cardiology fellowship at Presbyterian Hospital. After I completed my training, I took a job with a cardiology group in New Jersey. Many of our open-heart patients had their surgical procedures performed at Morristown Medical Center (then Morristown Memorial Hospital) and I made regular rounds there. One day while walking through the halls, I noticed a sign on a door: Dr. Yvonne Thornton, Department of Obstetrics and Gynecology. I passed by that door several times before I made the connection. One day I knocked on the door, introduced myself, and we spent a few minutes reminiscing about those past days.

Years later I watched "The Ditchdigger's Daughters," which told the special story of the Thornton family. I am now retired and occasionally meet with college alumni who attended those parties. The "Thornton Sisters" are often remembered. Seeing the article in *Columbia Medicine* (Spring/Summer 2018 issue) about Dr. Thornton again clears the "cobwebs" in my head and brings back those fond memories. To her credit, Dr. Thornton has been an influential role model for students and residents. Her contributions to the field of prenatal diagnostic testing and treatment have benefited her patients and her specialty. The many obstacles she has overcome to accomplish this makes her career even more noteworthy.

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“No One is Exempt from Cancer”: A Cancer Doctor’s New Lexicon as a Cancer Patient

These remarks were delivered by Michael A. Weiner, MD, professor of pediatrics, in June 2018 after he accepted the American Cancer Society’s Eugene D. O’Kelly Award, which honors the late CEO of KPMG for his commitment to community service and volunteerism. Dr. Weiner was recognized for his commitment as a pediatric oncologist and as founder of the Hope & Heroes Children’s Fund to support care for pediatric cancer and blood disorder patients at Columbia. His remarks have been condensed and are used with his permission.

By Michael Weiner, MD

I am honored, appreciative, and accept the Eugene O’Kelly award with gratitude and humility.

I have been a pediatric oncologist for more than 40 years, specializing in the care of children and adolescents with leukemia and lymphoma. I was a past chair of the Hodgkin’s Lymphoma Committee of the Children’s Oncology Group. I served as director of the Division of Pediatric Oncology and am currently vice chair for external affairs in the Department of Pediatrics. But, one of my proudest accomplishments has been founding the Hope & Heroes Children’s Fund that has raised more than \$75 million to provide comprehensive, compassionate care, to enable innovative cutting-edge research, and to promote education.

However, tonight, I don’t want to talk about my experience as a doctor. I want to share with you something that recently consumed me. In February I was diagnosed with cancer when a biopsy of a nodule behind my right ear was diagnosed as a follicular lymphoma.

How ironic. I have spent my life devoted to and caring for patients and their families, but now there was a knock on my door and I had no choice but to let this unwelcome visitor into my life to write my next chapter. I am now a cancer patient. I joined a fraternity of almost 2 million people in the United States who are diagnosed with cancer each year. Frankly, it is a club that no one would choose to join.

Cancer is ubiquitous. It affects all people without discrimination. It afflicts the young and old; male and female; white, black, yellow, and brown; Christian, Muslim, Buddhist, or Jew; the wealthy and people who live in poverty. It is true that statistically some cancers are more prevalent in one group than another, but ultimately cancer represents the epitome of diversity.

To cope with my new reality I thought of the thousands of children and adolescents I have known and treated. I thought of their courage in the face of pain, and suffering, beyond comprehension. I thought of all the tests, procedures, surgeries, and treatment that they endured. I thought of the patients who tragically succumbed from their disease and I thought of the many survivors who today are not only doctors, lawyers, teachers, and business men and women, but also husbands, wives, and parents.

I developed a lexicon to help me navigate and define my experience: **Disbelief, Acceptance, Trust, Isolation, Uncertainty, and Research.**

Disbelief. Did this really happen? The question “Why me?” did not seem relevant and was a query I never asked. While it was difficult at first to wrap my mind around the concept of having cancer, I never questioned the diagnosis. Follicular lymphoma is not rare or unusual, thus I accepted it.

I began the process of selecting a doctor to coordinate my care. I consulted many, but realized what was important to me was to find someone who would give me what I have strived to give my own patients. I did not require a doctor who has been declared the “best” or “biggest,” but rather I needed my doctor to be understanding, compassionate, available, knowledgeable, and willing to be my partner on my cancer journey. Jennifer Amengual and David Horowitz possess these qualities and I **trusted** them. My home is Columbia and New York-Presbyterian and I chose to receive my care there.

Although I was familiar with follicular lymphoma, like most patients I Googled the entity and read voraciously, lay articles and scientific papers. Although my doctors were optimistic, I was disheartened to learn that there was no universal treatment that leads to cure and there were no guarantees.

I do not believe that my path to cure would be a battle; the euphemism of going to war against cancer was not how I viewed the process. I considered the ordeal to be one of coexistence and I tried to create a calm, anti-cancer environment. I made lifestyle changes: meditation, acupuncture, exercise, and a healthier diet to complement immunotherapy and radiation treatments. I **accepted** cancer and chose to allow it to evolve, transform, and disintegrate.

I found that cancer patients are **isolated**. The well-meaning protestations of friends and colleagues such as “I am so sorry” or “Let me know if there is anything I can do to help” frankly did not resonate or make me feel better. I felt alone. I was alone while receiving Rituximab on the 14th floor of the Irving Pavilion. I felt

alone while receiving radiotherapy in the basement of the old Presbyterian Hospital. Having cancer is a solitary experience.

Every patient with cancer faces an **uncertain** future and I believe my unanswered questions are not unique. Will I be able to continue to work and be productive? Will I see my children and grandchildren grow, and what will they become in our uncertain world? Will I fulfill my bucket list? Will my wife, Wynne, and I grow old together? Will I be a cancer survivor? I am hopeful that all these issues will be resolved in a positive manner and I will join the ever-growing cohort of cancer survivors.

Cancer survivorship is directly related to the last word in my glossary, **research**. It is research supported by organizations such as the American Cancer Society and the Hope & Heroes Children’s Fund that will make a difference. Research will allow me to be a survivor. Should the malignant monster knock on your door or the door of a family member or friend, it is **research** that will provide the cure. Cancer diagnostics, molecular biology, genomics, and personalized precision-driven treatment are transforming every aspect of oncology. But, the cost is great and we must all do what we can to support ongoing research.

No one is exempt from cancer; any one can become a member of the club. I would like to leave you with one final thought in the words of Dr. Roy Vagelos, a physician-scientist, business leader, and benefactor of the Vagelos College of Physicians and Surgeons at Columbia University: “All of the magic you see in medicine today is because of basic science.”

CODA

A Poem by Marilyn Heins’55

Monthly blood, sweat, and tears no longer flow from
shriveled womb, drying sebaceous and lacrimal glands.
The first accepted long years ago,
deodorant swabbed from habit not need.
But my tears are sorely missed.
How strange to cry when cheeks stay dry!
Age robbed me of the copious flow of tears
that washed away most pain though never all.
Memory of pains past float up
and prove I am alive and sentient.
Actuality of pain in joints and other body parts,
is not welcome but can be borne.
Life, still precious, is worth that price.
A grandchild’s voice, a loving touch,
the crescent moon, sounds of music and trickling water
all attest to my grateful, beating heart.
I am content.

Loss of hair and height considerable.
Where have all those lustrous locks
and more than two inches of me gone?
I miss them as I miss my tears.
Eyes and ears still present and accounted for
but function only when assisted by glasses
and costly little aids to help me hear.
My brain still works given enough time.
Lightning-fast neurotransmissions clogged
by the molasses between synapses
slows recall of names and mental maps.
Yet still I cerebrated, an amazing human skill.
Recalling a face or poem or fact from long ago
brings joy. I remember, therefore I am.
I forget, therefore who am I?
An old lady.

Science Teachers Trade Summer Vacation to Conduct Research

When Samuel Silverstein, MD, longtime faculty member and former chair of the Department of Physiology & Cellular Biophysics, gave lectures to high school science students and their teachers in the 1980s, he noticed that “many teachers appeared to be unfamiliar with contemporary techniques in cell biology,” he says. That insight, and his concerns with the overall quality of science education in New York City schools, led him to found Columbia University’s Summer Research Program for Science Teachers, now in its 30th year.

The program provides paid fellowships for New York metropolitan area middle and high school science teachers, enabling them to participate in hands-on research in Columbia University and New York Stem Cell Foundation laboratories for eight weeks each year over two consecutive summers. Through a grant from NYSTEM, New York state’s stem cell initiative, the program currently focuses on stem cell biology.

The program was the first professional development program for science teachers to require two full summers of participation. Since the program’s beginning, 327 teachers have completed it, and 211 Columbia faculty members have mentored one or more teachers for two summers.

Kimberly Dempsey, one of 15 science teachers who participated in the program in the summer of 2018, spent the summer in Columbia Stem Cell Initiative Director Emmanuelle Passegué’s lab working with postdoctoral fellow Amélie Collins, MD, PhD, to develop a protocol for comparing hematopoietic stem cells from neonatal and adult mice.

“The most exciting part of the experience has been talking with Dr. Collins about her experimental design, listening to her think through her choices for controls, and her responses when unexpected data come back,” says Ms. Dempsey, a 10th grade chemistry teacher in Manhattan. “It is wonderful to witness the creativity and logic inherent in good scientific research.” She also has used what she has learned to modify her teaching. “I have been developing a list of important basic skills that I see done around me. A big one that I have not focused enough on is having students prepare dilutions from solutions and explain how these dilutions are made.”

Teachers also have benefited in other ways. Ronnie Almonte spent his first summer in the program conducting research on embryonic stem cells in the lab of Dieter Egli, PhD. “Columbia’s program bridges the gap between my local public school and all the



Among the program’s faculty mentors are Gerard Karsenty, MD, PhD, the Paul A. Marks Professor and Chair of Genetics & Development and professor of medicine. He mentored science teacher Rachel Taylor in research on the regulation of energy metabolism by bone.

city has to offer,” says Mr. Almonte. “I’m already starting to make connections. A postdoc in the lab said he would love to talk to kids in my classroom. When students meet real scientists, they get a better sense of what science is and, perhaps, their potential place in it.”

Program graduate Arlene Ramos, PhD, who teaches health in a Manhattan high school, learned about opportunities to enhance her teaching while conducting research on Alzheimer’s disease in the lab of Ottavio Arancio, MD, PhD. Dr. Ramos has been accepted into the Math for America and Columbia’s Zuckerman Institute Brain Insight Teacher Scholar programs.

A study published in *Science* magazine by Dr. Silverstein and colleagues from Columbia, New York University, and the University of Michigan reported that 10 percent more students of teachers who completed Columbia’s program passed New York Regents exams in biology, chemistry, and earth sciences than classmates studying the same subjects in classes taught by other teachers in the same school. The study also showed that program graduates stayed in education at a higher rate than comparably experienced teachers who did not participate, saving New York City’s Department of Education about \$20,000 spent on each newly recruited teacher.

Dr. Silverstein estimates that on average each program graduate saves the city's Department of Education about \$100,000 in the first four years following his/her entry into the program for courses students do not have to repeat, Regents exams they do not have to retake, and teachers who do not have to be replaced.

"One of my greatest pleasures in directing this program is seeing its teachers and their students succeed," says Dr. Silverstein. The program, its teachers, and their students have earned 61 national, state, and local awards since 2003, including seven Alfred P. Sloan Foundation-Fund for the City of New York Awards for Excellence in Teaching Science and Mathematics, the highest honor given to city science and math teachers.

Impressed by the program's results, other institutions have adopted its model, including Stanford University's science outreach program, New York state's Questar III BOCES, and New York state NYSTEM-sponsored initiatives at Cornell University and Rensselaer Polytechnic Institute. The experiences at other institutions have encouraged Dr.

Silverstein to seek expansion of the summer research program concept. "There are only about 5,000 high school science teachers in New York City's public high schools. We could provide these experiences for about 15 percent of them in 10 years if all New York City medical schools and science-rich universities joined together to implement programs like ours," says Dr. Silverstein. He is collaborating with the Associated Medical Schools of New York to propose such an initiative to New York City's Department of Education. "The more we collaborate to support teachers and their schools, the more likely their students will be prepared and interested in pursuing careers in medicine, health, and other humanly rewarding and remunerative STEM disciplines."

Dr. Silverstein has received several awards for developing and directing Columbia's Summer Research Program. Among them are the 2003 New York Mayor's Award for Public Understanding of Science, the American Society for Cell Biology's 2005 Bruce Alberts Award for Excellence in Education, and the 2017 Vagelos College of Physicians and Surgeons Award for Excellence in community service.

Identifying, Alleviating Bias in VP&S Curriculum

During their first year as Columbia medical students, Christopher Travis'19 and Laura Benoit'19 started to notice a bias in the curriculum, particularly in lectures that describe normal as a limited range. They knew the bias was not intentional, but they decided it was their responsibility to draw attention to what they noticed.

"The classic textbook definition of healthy gingivae is coral pink, but of course healthy gums of persons of color may be pigmented," says Ms. Benoit. "There is a danger in incomplete medical knowledge," adds Mr. Travis. "As a clinician I might mistakenly think that something is wrong with a patient when it isn't necessarily so. One criterion to determine a newborn's health is its pink appearance, yet what you care about isn't specifically the color but an adequate oxygenated blood flow to the extremities. If the baby's skin is darker you might not notice it as pink, but there will also be a difference between a dark arm that is dusky and one that is adequately oxygenated. Those differences add a level of complexity but also a level of completeness."

They were hesitant to say anything, but they wrote a letter to VP&S senior leadership to draw attention to the issue of biases that are often implicit and, therefore, hidden. The letter, while expressing a deep regard for their teachers, outlined plans to address the biases. The response was warm and receptive, and soon the two formed a diverse task force of students, faculty, and administrators to implement plans for a more inclusive curriculum.

"We are recognizing that certain biases are baked into the way we've all learned medicine," says Deepthiman Gowda, MD, associate professor of medicine and course director for Foundations of

Clinical Medicine. "The lack of inclusion and the way we describe normal or the lack or careful recognition of damaging stereotypes, particularly in descriptions of diseases, are not necessarily purposeful. We have to be self-reflective and not take biases that might exist in the curriculum personally but see them as opportunities for improvement."

The Task Force for a Bias-Free Curriculum, chaired by Dr. Gowda, drafted and disseminated guidelines for educators, identifying six areas for consideration when developing curricular material and teaching students. For example, the guidelines suggest having an inclusive representation of healthy or normal and avoiding stereotypes in representation of pathology. The guidelines were presented to and adopted by the school's Curriculum and Education Policy Committee.

"Our job as educators is to prepare our students to take care of the incredibly wide diversity of patients they are going to encounter throughout their careers," says Dr. Gowda. "Therefore it is within our responsibility to make sure the curriculum is populated with cases, examples, and knowledge that represent that diversity."

In support of the initiative, a web-based bias-free curriculum feedback portal was added to the learning environment reporting portal, where students can submit both positive and negative course feedback. Ms. Benoit and Mr. Travis stress the importance of the portal to keep the discussion going among students and faculty in the medical school. "For us, the most important goal, in addition to having the curriculum delivered, is that students will participate critically in its implementation," says Mr. Travis.



Re-dedicating a “home plate” plaque in the medical center garden are, from left, Paul Dunphey, a NewYork-Presbyterian senior vice president; New York State Assemblywoman Carmen de la Rosa; Robert Jackson, who was elected to the New York State Senate in November; and Lee Goldman, dean of VP&S and chief executive of the Columbia University Irving Medical Center.

Plaque Commemorating Highlanders Baseball Stadium Returns

A piece of medical center history returned to the garden in September, when the plaque placed near the approximate location of the Highlanders home plate was re-dedicated in a ceremony.

The baseball team known as the predecessor to the New York Yankees played in Hilltop Park in a location where Columbia and Presbyterian Hospital later came together to build an academic medical center campus in Washington Heights.

The plaque was removed from the medical center in 2011 during the garden’s renovation to make room for a radiation suite.

The New York Highlanders, the first American League team in New York, played at Hilltop Park between 1903 and 1912. Originally known as American League Park, the location was called Hilltop Park because it was one of the highest points in Manhattan.

The plaque was originally placed in the garden at a ceremony in 1993. Highlanders pitcher Chet Hoff, 102 years old at the time, was on hand to dedicate the bronze plaque provided by the New York Yankees.

Master’s Degree in Genetic Counseling To Enroll First Students in 2019

A new master’s program in genetic counseling at VP&S will begin enrolling students in the fall of 2019. The two-year program will educate 12 students in clinical genetics, counseling, communication, genomic medicine, and precision medicine.

Genetic counselors help patients and their families understand how genes shape their health and provide personalized guidance in making medical and family decisions. With the rapid growth of genetic tests and an American public eager to use them, demand is high for genetic counselors. A search of the Genetic Testing Registry of the NIH’s National Center for Biotechnology Information yields thousands of tests ranging from cancer to heart disease to neurological conditions. The U.S. Department of Labor’s Bureau of Labor Statistics reports that employment of genetic counselors is projected to grow 29 percent by 2026.

“The workforce opportunities for genetic counselors have expanded greatly, especially in the last decade,” says Amanda Bergner, MS, a certified genetic counselor, the program’s director, and associate professor of genetic counseling (in genetics & development) at VP&S. “In the past, genetic counselors mainly worked with patients in clinical care settings. Now, in addition to patient-facing work, genetic counselors are employed within commercial diagnostic labs, private companies, health insurance companies, and advocacy groups.”

As workforce opportunities expand, genetic counselors are in short supply across the United States. The nation has 4,600 board-certified genetic counselors, not nearly enough to meet existing demand. The shortage is especially acute in New York, where the Albany metropolitan area, in particular, has one of the lowest counselor-to-resident ratios in the country. New programs are starting to increase the supply, but a workforce study commissioned by the Genetic Counselor Workforce Working Group calculated that the supply of genetic counselors will not match demand until sometime between 2024 and 2030.

Students in the new VP&S program will be taught by genetic counselors, researchers, and physicians working at the medical center. “We’re capitalizing on the experience and knowledge of genetic counselors here at Columbia,” says Ms. Bergner, who notes that counselors are employed in multiple VP&S departments as well as the Institute for Genomic Medicine. “Our genetic counselors have nearly 200 years of collective experience to bring to our students.”

Columbia’s program will differ from others by immersing students more deeply in precision medicine and the social constructs that inform health disparities. For half of their second year, students will intern at the Institute for Genomic Medicine and have exposure to the All of Us research program, which seeks to create a health database with genomic information from at least 1 million people.

Students in the program will start patient care interactions in their first year in the Vagelos Education Center, where they will do training exercises on medical cases with standardized patient-actors in the building’s simulation center. They also will complete clinical internships at NewYork-Presbyterian Hospital.

These experiences will teach students counseling strategies and communication skills that support patient empowerment. “Genetic counselors are being asked to be more proficient at promoting health and facilitating clients making good choices for themselves and their families in the midst of a rapidly increasing amount of information,” says Ms. Bergner. “We have designed the Columbia curriculum to give students those skills.”

New Nursing Dean: Lorraine Frazier

Lorraine Frazier, PhD, most recently dean of the nursing school at the University of Texas Health Science Center at Houston,



joined Columbia in September as dean of the Columbia University School of Nursing and senior vice president at Columbia University Irving Medical Center. Dr. Frazier also has a faculty appointment as the Mary O’Neil Munding, DrPH Professor of Nursing.

Dr. Frazier served for three years as dean at Texas, where she completed her PhD, joined the faculty, and served as pro-

fessor, associate dean, and chair of the Department of Nursing Systems. She also served for almost four years as dean of the College of Nursing at the University of Arkansas for Medical Sciences.

Dr. Frazier is a national expert in biobanking. After a postdoctoral fellowship at the UTHealth School of Public Health Human

Genetics Center, she served as director of the UTHealth Biobank and project director for TexGen, a biobank consortium of academic institutions across Texas. Her research into the interactions of behavior and genetics in patients with acute coronary syndrome has been funded by the NIH.

The UTHealth School of Nursing during Dr. Frazier’s tenure as dean experienced significant growth in programs, graduate enrollment, and endowment funding. In 2017, a \$25 million gift resulted in the University of Texas naming the school the Jane and Robert Cizik School of Nursing.

Dr. Frazier succeeded Bobbie Berkowitz, PhD, who announced her decision in January to step down as dean after eight years.

In announcing Dr. Frazier’s appointment, Columbia President Lee Bollinger and CUIMC Chief Executive Lee Goldman acknowledged Dr. Berkowitz’s leadership in strengthening the nursing school’s programs in graduate nursing education, clinical care, and research. “The school is in an extremely strong position to advance the practice of nursing,” said the announcement. It singled out her role in the conception, planning, and construction of the new School of Nursing building, which opened in 2017.

VP&S Class of 2022: 25-Year Anniversary of White Coat Ceremony

Columbia welcomed 140 new students in the Class of 2022 at the White Coat Ceremony in August.

The ceremony marked its 25-year anniversary this year. More than 4,000 Columbia medical students have been through the White Coat Ceremony since it was founded at VP&S in 1993 by the late Arnold P. Gold, MD, professor of clinical neurology and clinical pediatrics, to reinforce a commitment to humanistic practice. He also founded the Arnold P. Gold Foundation, which has developed programs to support the education and training of humanistic health care professionals.

The foundation says a White Coat Ceremony or similar ritual takes place today at 99 percent of U.S. medical schools accredited by the Association of American Medical Colleges, medical schools in 19 other countries, more than 310 schools of nursing, and several physician assistant programs.

ABOUT THE CLASS OF 2022:

140 STUDENTS

- 114 MD students
- 11 MD/PhD students
- 10 Columbia-Bassett students
- 3 PhD-to-MD students
- 2 oral and maxillofacial surgery students

63 women/77 men

Age range: 21-36

27 underrepresented minorities (19%)

7,537 total applications through AMCAS

6,796 secondary applications

5,652 applications for traditional MD program (including 1,043 from underrepresented minorities)

534 applications for Columbia-Bassett track

553 applications for MD/PhD program

57 applications for PhD-to-MD program

1,006 interviews conducted (including 176 with underrepresented minorities, 48 for the Columbia-Bassett track, 84 for the MD/PhD program, 7 for the three-year PhD-to-MD program, and 17 for the oral and maxillofacial surgery program)

65 colleges represented

28 states represented

10 foreign countries represented (Australia, Belarus, Canada, China, Colombia, Egypt, Great Britain, India, Italy, and Japan)

News in Brief

Andrea Califano, Dr. and **Jordan Orange, MD, PhD**, have been elected to the National Academy of Medicine, one of the highest honors in the field of medicine. Dr. Califano, the Clyde and Helen Wu Professor of Chemical and Systems Biology and founding chair of the



Andrea Califano

Department of Systems Biology, has developed innovative, systematic approaches to identifying the molecular factors that lead to cancer progression and drug resistance. Dr. Califano has pushed the conversation about cancer research away from a focus on gene mutations and toward the complex molecular networks that determine cancer cell behavior; his work focuses on master regulator proteins as critical



Jordan Orange

drivers of cancer, though they are rarely mutated or differentially expressed. Dr. Orange, the Reuben S. Carpentier Professor of Pediatrics and chair of the Department of Pediatrics, has discovered previously unknown immune diseases in children and uncovered their underlying biological mechanisms, work that has allowed him to identify new therapeutic strategies for his patients and other patients with more common diseases. Dr. Orange is credited with defining a new class of diseases known as natural killer cell deficiencies, and work in his lab may lead to therapies that direct a patient's natural killer cells to eliminate infections or cancer.

Carol Mason, PhD, professor of pathology & cell biology, neuroscience, and ophthalmic science (in ophthalmology) and a principal investigator at Columbia's Zuckerman Institute, has been elected to the National Academy of Sciences. Dr. Mason studies the brain circuitry of the visual system, focusing on how neurons in the developing brain extend axons from the eye to destinations deep in the brain. Her research has helped to



Carol Mason

reveal the processes that guide the growth and trajectory of the visual system's neurons, opening up the possibility of repairing damage to the visual system caused by injury or disease.

Lorraine S. Symington, PhD, the Harold S. Ginsberg Professor of Microbiology & Immunology and a member of the Herbert Irving Comprehensive Cancer Center, has been elected to the American Academy of



Lorraine S. Symington

Arts and Sciences. Dr. Symington studies how the cell repairs harmful DNA damage. When both strands of DNA break, homologous recombination is the main mechanism for repair. In recent years, the Symington lab has developed elegant genetic assays, coupled with physical analysis of recombination intermediates, to understand homologous recombination and to further characterize how members of the RAD52 group of genes are involved in the repair of double-strand breaks.

Ten VP&S faculty members received funds during the sixth round of grants from the Presi-

dent's Global Innovation Fund, which awards grants for faculty members to leverage and engage the nine Columbia Global Centers to increase opportunities for research, teaching, and service. Recipients of Spring 2018 grants: **Danielle Bajakian, MD** (Surgery); **Jeanine D'Armiento, MD, PhD** (Medicine); **Wafaa El-Sadr, MD** (Medicine); **Rishi Goyal, MD, PhD** (Emergency Medicine); **Andreas Hielscher, PhD** (Radiology); **Wilmot James, PhD** (Pediatrics); **Philip LaRussa, MD** (Pediatrics); **Craig Spencer, MD** (Emergency Medicine); **Lawrence Stanberry, MD, PhD** (Pediatrics); and **Annika Sweetland, DrPH** (Psychiatry).

Columbia's Faculty Diversity Initiative, now in its 13th year, has awarded grants to two VP&S faculty members through the Provost's Grants Program for Junior Faculty Who Contribute to the Diversity Goals of the University. Spring 2018 grant awardees, selected via a competitive application process, included **Lauren S. Chernick, MD** (Pediatrics), and **Edward Owusu-Ansah, PhD**, (Physiology & Cellular Biophysics).

Velocity, Columbia's Ride to End Cancer raised more than \$1 million this year for cancer care and research. More than 800 people participated in the second year's bike ride. Riders selected one of four routes, with distances ranging from 10 to 62.5 miles. Funds raised benefit the Herbert Irving Comprehensive Cancer Center.

Collaboration Helps Patients Who Have Genetic Epilepsies

Since the first gene for epilepsy was discovered, an additional 75 epilepsy-causing genes have been identified, leading to more precise diagnoses and, in some cases, new therapies.

The rapid progress means today's patients with a genetic diagnosis for their epilepsy need the support of neurologists and geneticists with expertise in the field's latest developments. That expertise is now available at the new Translational Medicine Clinic for the Genetic Epilepsies at CUIMC—a collaboration between the precision medicine epilepsy research programs of the Institute for Genomic Medicine and Columbia's Comprehensive Epilepsy Center.

Until the past decade, patients who suffered from epilepsy were categorized into groups based on seizure severity and EEG patterns, even though patients within the same category may have had entirely different underlying causes for their epilepsy.

"We are only now able to diagnose epilepsy properly," says Tristan Sands, MD, PhD, assistant professor of neurology and an epileptologist specializing in genetic epilepsies. "We are able to

diagnose patients on the basis of their genetic differences, which gets to the heart of why they have epilepsy and opens the door for precision medicine approaches to target the underlying problem."

Patients who arrive at the clinic bring their most recent genetic test results for interpretation. During the visit, patients are seen by Dr. Sands and the clinic's genetic counselor, Michelle Ernst. After studying the patient's genetic test results, the team provides a detailed personalized report of the patient's particular genetic epilepsy with the most accurate information about the relationship between the genetic findings to the patient's epilepsy and genetic variant.

In some cases, Dr. Sands says, understanding a patient's genetic test results can lead to important treatment modifications. Some treatments have been identified for patients with specific genes, and other diagnoses may indicate that certain drugs should be avoided or that epilepsy surgery may be warranted.

For patients whose treatment is not modified, "we want to give them a better understanding about the conditions seen in people with similar variations in this gene," says Ms. Ernst, "and how we expect those conditions to impact a person's life." The team also provides patients and family members with information about the hereditary nature of the genetic finding and reproductive risks.

"Many patients with epilepsy are getting genetic testing, but often the results are not conclusive," adds Dr. Sands. "The testing may have identified a 'variant of uncertain significance,' and it is not clear if that truly explains their epilepsy."

These patients are encouraged to return periodically, often once a year, so the team, which keeps abreast of the medical literature, can update patients with any new information about their particular genetic epilepsy.

Dr. Sands and Ms. Ernst also provide patients with information about emerging precision medicine trials and research opportunities applicable to their epilepsy and refer them to support networks and advocacy groups.

There are many epilepsies and for every gene associated with epilepsy, there are many variants, says Dr. Sands.

To schedule an appointment with the Translational Medicine Clinic for the Genetic Epilepsies, contact Jeffrey Nunez at 212-342-6867.



Where Runners Go to Improve

Columbia RunLab is a unique program that offers biomechanical analysis for runners of all levels and experience. The clinic offers high-level evaluation to help runners optimize their performance.

The program is housed in Columbia's physical therapy doctoral program. Colleen M. Brough, DPT, founder of RunLab and assistant professor of rehabilitation & regenerative medicine, directs the clinic with a group of DPT students.

The RunLab can evaluate three to four runners each evening for a one-time personal evaluation, either to enhance performance or to offer help with an ongoing injury. Each runner cycles through four data collection stations in which DPT students identify specific maladaptive movement mechanics, conduct biomechanical assessment of specific joints of the foot and ankle, utilize manual muscle testing to identify potential weaknesses or muscle dysfunction most applicable to running, and film runners using three camera views to collect data such as stride length, step length, cadence, foot strike, and asymmetrical movements.

Once all data have been collected, runners participate in a discussion with the RunLab team, in which the DPT students and physical therapists review the findings of each runner with attention to the participant's goals, running history, and injury risks. Following the discussion, runners receive a treatment program and recommendations to target weakened muscles and address running form.



COURTESY RUNLAB

The clinic focuses on the runners, but Dr. Brough's goal is also to enhance the student educational experience, provide early exposure to the clinical environment, and provide a research platform for teaching and learning medicine. "We see positive impact of a team-centered learning environment among our students," says Dr. Brough. "We see development of patient-centered clinical problem-solving skills, with enhanced learning that occurs through peer learning. The students get a unique opportunity to share the clinical problem-solving experience with each other as well as with the patient."

Dr. Brough also promotes public service. The clinic offers complimentary service to groups with special needs in the running community who use running as therapy. One such group is the Wounded Warrior Project, which manages PTSD symptoms among veterans through endurance running. "We value the support these organizations provide the running community," says Dr. Brough.

To schedule a personal evaluation at the RunLab, call 212-342-3287.

Mothers Center Focuses on Outcomes for Both Mother and Child

For most of human history, childbirth has been a dangerous venture for women. At the beginning of the 20th century, about 600 women per 100,000 died from childbirth, and the rate did not start to decline substantially until the 1930s when antibiotics became available. By the 1980s, mortality from childbirth in the United States reached its lowest point, about seven deaths for every 100,000 births.

But over the past 30 years the numbers of maternal deaths in the United States has doubled, partly due to an increase in the numbers of women getting pregnant at an older age while having more chronic medical conditions such as congenital heart disease, obesity, chronic hypertension, diabetes, autoimmune conditions, or psychiatric issues.

At least 700 women die every year from pregnancy or childbirth complications

in the United States, and many more suffer severe complications. According to an analysis published in the American Journal of Obstetrics & Gynecology, the maternal death rate increased by 27 percent in 48 states from 2000 to 2014.

VP&S began the Mothers Center program in 2013 to provide multidisciplinary care and management for expectant mothers who have significant medical and surgical complications. "For many years innovation in maternal-fetal medicine had been focused mostly on the fetus, and we felt we needed to do the same for mom," says Mary D'Alton, MD, chair of obstetrics & gynecology and the Willard C. Rappleye Professor of Obstetrics & Gynecology at VP&S.

Five years later, the Mothers Center, the only center of its kind in the United States designed especially to deliver multidisciplinary care to women with maternal risk,

moved into its own dedicated and innovative space that centralizes services that had been scattered throughout the medical center. The new location, co-located with the Carmen and John Thain Center for Prenatal Pediatrics, allows the center to provide coordinated, multidisciplinary care in one location to more at-risk women during their pregnancies.

"Our goal is to both centralize the care for these women so they don't have to navigate their way around the medical center and to enhance collaboration across the specialties," says Leslie Moroz, MD, director of the Mothers Center. "We believe this dedicated space for optimizing a mother's health will lead to better outcomes both for the mothers and their babies."

The Mothers Center may be reached by calling 844-666-2687.



A CASCADE OF CARE

BY SHARON TREGASKIS

CLINICIANS
AND EDUCATORS
CONFRONT THE
OPIOID EPIDEMIC

Fentanyl gave people with advanced heart disease a second lease on life just a few generations ago. “In the early to mid-1960s, cardiac surgery was still in its infancy,” wrote surgeon, anesthesiologist, and VP&S graduate Theodore H. Stanley ’65 in his 2014 report “The Fentanyl Story” for the *Journal of Pain*. “Patients with end-stage mitral and aortic valvular disease were a particular problem because the severity of their cardiopulmonary dysfunction made them huge anesthetic risks.”

Then in 1979, Dr. Stanley, who died in 2017, and collaborators demonstrated that high-dose, intravenous fentanyl—a fast-onset synthetic with more than 100 times the potency of morphine—addressed the technical demands for anesthesiology during heart surgery in even the most challenging cases, expanding the field of cardiovascular surgery and transforming the prognoses for millions of Americans with advanced heart disease.

Nearly 40 years later, fentanyl is again at the heart of a seismic shift in American public health. This time, however, it plays the role of archvillain in the opioid crisis sweeping the nation. Back in 1960,

when it was first engineered in a Belgian laboratory, fentanyl was prized for its cheap, easy manufacture and the enhanced fat solubility that speeds its passage across the blood-brain barrier. It was the most potent opioid in the world, with the fastest onset of action and highest therapeutic index.

Thirty to 50 times more powerful than heroin—and the same price to produce, pound for pound—fentanyl offers a robust return on investment for players in the international illicit drug trade. With a high that combines euphoria and extreme relaxation, fentanyl is an easy sell on the street, especially among opioid-tolerant users of heroin and prescription pills. And given its extreme potency, fentanyl has been increasingly implicated in overdose deaths. Just 2 milligrams—the equivalent of four grains of salt—can be fatal, in part because its potency often exceeds even multiple doses of naloxone, the opioid antagonist used by emergency workers and others to prevent respiratory failure during overdose.

When fentanyl hit New York City in force in 2016, says Mary Bassett ’79, who was city health commissioner until she took a position at Harvard in September, overdose deaths spiked by 50 percent;

currently 72 percent of overdose deaths in New York are attributable to either heroin or fentanyl. In a May 2018 research letter, the Journal of the American Medical Association reported that 46 percent of all opioid overdose deaths in 2016—including those of Prince and more than 19,000 other Americans—were caused by the same drug that transformed cardiovascular surgery in the 1980s.

The scourge of fentanyl was one of many themes echoing through a day-long opioids symposium convened in late June by the Irving Institute for Clinical and Translational Research. Just days earlier, NIH director Francis Collins had authored a JAMA op-ed announcing that beginning with the 2018 fiscal year, Congress would allocate a \$500 million increase to the NIH budget for Helping to End Addiction Long-Term (HEAL), an interdisciplinary initiative to improve treatment for opioid misuse and addiction and to enhance pain management.

Critical to that effort, says Irving Institute Director Muredach P. Reilly, MBBCh, will be getting a handle on the current situation. “Epidemiology of the crisis is changing in real time,” says Dr. Reilly, who hosted the symposium with Irving Institute Co-Director Harold Pincus, MD. “We don’t fully understand what’s happening on the ground.” Beyond needing strategies to stem overdose death

rates, notes Dr. Reilly, health care leaders want to address effectiveness and health care costs associated with treatment, new interdisciplinary health care models for opioid addiction, infectious disease transmission among opioid users, neonatal opioid withdrawal syndrome, and novel nonopioid treatments for pain and those at high risk of developing opioid dependency.

FOCUSING ON HIGH-RISK POPULATIONS

Psychiatrist and epidemiologist Mark Olfson, MD, investigates misuse of prescription drugs, corollaries of self-harm, and strategies for health care reform to promote access to substance use treatment. Compared with those who favor other substances, says Dr. Olfson, opioid users suffer remarkably high rates of mortality. Among those who ultimately die of overdose, most have had multiple encounters with the health system for such risk factors as a mental health diagnosis, previous treatment for opioid use, and heroin overdoses, creating multiple opportunities for intervention and treatment before dying. “This is a persistently high-risk population,” says Dr. Olfson. “Alongside increasing access to treatment for opioid use disorder, it is critically important that we also improve access to treatment for related causes of self-injury.”

Reporting in JAMA Psychiatry, Dr. Olfson and co-authors detailed a further hazard particular to opioid users—the overall increased risk of mortality among users after a nonfatal overdose. In addition to the risk of repeat opioid overdose—a hazard for approximately one-third of those who have already overdosed, regardless of gender, age, or race—users also suffer drastically increased risk for death due to viral hepatitis, HIV, and respiratory diseases, as well as suicide risk more than 25 times that of the general population. “This population is not just vulnerable to the health threat posed by opioid overdose,” says Dr. Olfson, “but also to health threats posed by a constellation of other medical and mental health problems, which calls for integrating medical and mental health services with substance use services.”

Currently, less than 20 percent of people with opioid use disorder receive treatment of any kind and of those, less than one-third receive medication-assisted treatment (MAT), which has been shown to improve health, reduce infectious disease transmission risk, minimize criminal activity, and reduce the risk of relapse, overdose, and death. “Effective treatment should include psychosocial support, family intervention, attention to psychiatric disorders, medical status, providing medications, and psychotherapy,” says Frances R. Levin, MD, chief of the Division on Substance Use Disorders at the New York State Psychiatric Institute. “I’m agnostic about which psychotherapeutic approach is best, but we do patients a disservice and put them at risk of an overdose if we do not offer and, hopefully, provide MAT.”

FRAMEWORK FOR TREATMENT

In August, Drs. Olfson, Pincus, and Levin were co-authors—with lead author Arthur Robin Williams, MD, Edward Nunes, MD,



Mark Olfson

and others—of a proposal for a unified framework. Published in the *Journal of Substance Abuse Treatment*, the framework integrates MAT, mental health care, and psychosocial support for people with opioid use disorder. Drawing on a concept adopted early in the campaign to transform HIV/AIDS from a death sentence into a chronic condition, the team outlined a “cascade of care” intended to provide a unified set of quality measures in the treatment of opioid use disorder: Identify people affected with opioid use disorder, engage them in care, initiate MAT, retain them in MAT for a minimum of six months, and promote their continued abstinence. “For people with opioid use disorder, the challenges include engaging people in treatment and keeping them on MAT to achieve remission in opioid misuse,” says Dr. Olfson. “Implementing a cascade of care framework can help identify gaps in treatment and opportunities for improvement while informing treatment planning and monitoring key clinical targets.”

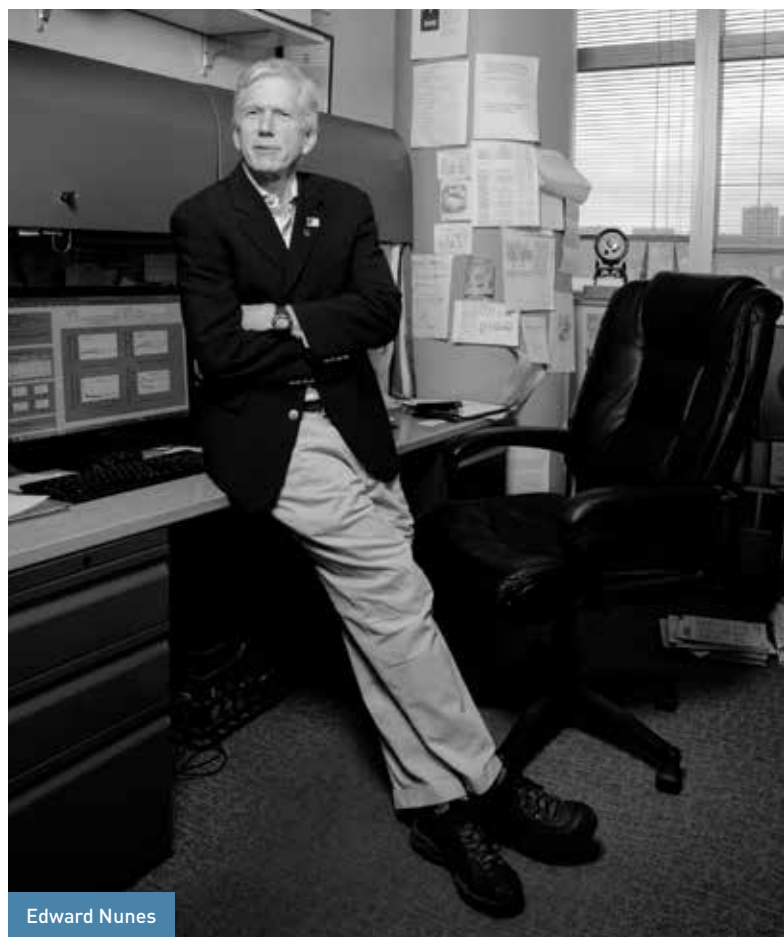
Dr. Nunes has spent decades studying treatments for opioid use disorder. As principal investigator of the New York Node of the National Institute on Drug Abuse Clinical Trials Network and other NIDA-funded projects, he has run myriad studies investigating the efficacy of the three FDA-approved MAT options for

DROPOUT FROM SOME MEDICATION-ASSISTED TREATMENT PROGRAMS IS A MAJOR PROBLEM AND OFTEN LEADS TO RELAPSE. MANY PATIENTS STOP TREATMENT BECAUSE THEY ARE DOING BETTER AND BELIEVE THEY NO LONGER NEED MEDICATION.

opioid users intent on recovery: methadone, naltrexone, and buprenorphine. “There are no more powerful treatments in psychiatry than these three medications. They work remarkably well, if you can get the patients to take them and keep the patients taking them,” says Dr. Nunes.

The medications, however, are not perfect. Like a nicotine patch, slow, steady methadone protects against overdose and helps patients become abstinent. But methadone is only available through specially licensed clinics, which makes it burdensome to patients who need daily observed dosing at the outset. Also, methadone clinics are primarily located in large population centers, and

many parts of the country have no methadone clinics. Naltrexone, an opioid antagonist, is available as an extended-release injection and can be prescribed by any physician. Patients must be detoxified before they can initiate naltrexone injections, and few physicians are familiar with the option. Buprenorphine requires neither detoxification nor abstinence to initiate treatment but is available only from specially trained and certified clinicians, whose patient loads are limited by the



Edward Nunes

Substance Abuse and Mental Health Services Administration (SAMHSA)—30 patients in the first year and up to 275 in subsequent years.

Currently, only about 5 percent of practicing physicians in the United States are licensed to prescribe buprenorphine. According to the White House opioid commission’s 2017 report, 72 percent of the most rural counties—and nearly half of all counties nationwide—lack even a single health care practitioner licensed to prescribe buprenorphine.

Dropout from treatment is a major problem for both naltrexone and buprenorphine. A recent comparative effectiveness trial co-led by Dr. Nunes, published in *Lancet*, showed that among patients at one of eight community-based treatment programs across the United States, more than 50 percent of patients had dropped out of treatment by six months after treatment entry. Dropout is often followed by relapse to opioid use. Dropout occurs for various reasons, but a study by Dr. Williams, published in the *American Journal on Addictions*, showed that many patients stopped treatment because they were doing better and believed they no longer needed medication. An important focus of future work will be to find ways to reduce the dropout rate from these effective medication treatments.

EDUCATING CLINICIANS, STUDENTS, RESIDENTS

To increase the number of professionals who offer MAT, Dr. Levin has served since 2014 as medical director for a series of Providers Clinical Support System grants from SAMHSA to educate practicing physicians and nurse practitioners in MAT, to increase the number of clinicians credentialed to prescribe buprenorphine, and to provide one-on-one clinical mentorship to sustain that momentum, providing an online residency of sorts. “You have to have a workforce willing to treat addiction,” says Dr. Levin. “It’s poignant how many users are not adequately identified, initiated on MAT, or maintained on MAT. We need strategies to improve that.”

Dr. Levin sees particular promise in training medical students to detect substance use disorder, making the diagnosis on par with diagnosis of diabetes, heart disease, or a broken leg. In 2015, Dr. Levin and colleagues developed a comprehensive, integrated training program to teach Columbia medical and dental students a technique known as SBIRT—Screening, Brief Intervention, and Referral to Treatment—in which students learn indicators of high risk for substance use disorder and ways to screen patients for the condition. “If you haven’t been trained in talking with patients with addiction, putting them on MAT will not occur,”



Frances R. Levin

says Dr. Levin. “It’s a hurdle that medical school education needs to address.”

SBIRT extends a project Dr. Levin began more than a decade ago, in partnership with Nancy Chang ’95, then assistant director for education and teaching for the Division of General Medicine, and VP&S colleagues. In 2008, the team developed a curriculum for house staff to confront the intersection of chronic pain management in primary care and substance abuse. The two-hour, case-based program, developed with support from SAMHSA, was designed to help residents recognize prescription opioid abuse and structure the treatment of primary care patients, including those with an opioid or other substance disorder.

Now director of the VP&S primary care clerkship, Dr. Chang says she saw the effect of such programs firsthand as residents contending with the challenges of treating chronic pain became increasingly cautious

with the use of opioid prescriptions. “Chronic pain is still a relatively small part of the medical school curriculum and even more experienced doctors struggle with the ability to manage chronic suffering, which requires a holistic understanding of the patient,” she says. Even internists with decades of experience—herself, included, says Dr. Chang—have greater comfort with quantitative, objective data: blood pressure, viral counts, cholesterol, and the like. “Chronic pains

come in innumerable varieties. The context and etiology of one person’s chronic back pain will not be the same as another’s.”

Any discussion about opioid addiction cannot ignore the role of chronic pain, and any prescription for reducing the epidemic should include improvements in diagnosing and treating pains that may have first led a patient to opioid medications. Getting to the core of a patient’s suffering will demand time, attention, and trust—features of relationships that develop over the course of multiple encounters. “Early on, residents need to learn a lot of biomedical facts about patients,” says Dr. Chang. With seasoning and development of longitudinal relationships, says Dr. Chang, residents’ capacity and curiosity expand. “They grow beyond an initial focus on the more objective and easily treated conditions like high blood pressure, diabetes, and even organ failure to ownership and care of chronic pains. In understanding how the pains evolved and impacted the lives of patients and their family over many years, residents become more invested in addressing mental health and social barriers.”

The power of longitudinal relationships to expand a trainee’s capacity to cope with the complexity of chronic pain has been

CLINICIANS MUST ABANDON THE JUDGMENT AND STIGMA THAT OFTEN PERMEATE ENCOUNTERS BETWEEN PHYSICIANS AND PATIENTS LIVING WITH ADDICTION.

particularly apparent among VP&S students participating in a 12-week, amalgamated clerkship launched in 2014 at the James J. Peters VA Medical Center in the Bronx. Students in the amalgamated clerkship serve as health care navigators for a small panel of recently hospitalized patients with severe medical comorbidities and often complex psychosocial needs. Over the course of the clerkship, students reflect on the relationships forming with their patients and help coordinate and follow patient care to providers in primary care, orthopedics, urology, and other specialties. “You can really see them develop a much more nuanced understanding of the illness experience, learning what matters the most to patients,” says Dr. Chang. “And that’s a better context for teaching about caring for chronic pain and chronic suffering.”

For aspiring physicians, perhaps the hardest lesson to master when working with patients in the throes of chronic pain and suffering is the possibility that writing a prescription can risk compounding a patient’s woes. “Certain individuals have an outsized response to opioids,” says Dr. Nunes, noting that no test can predict whether a person will have a physiological disposition to addiction. “It’s like an allergy—you don’t know you have it until you’re exposed. If you’re vulnerable to opioids, once you are exposed you may not be able to stop.”

Once an addiction is suspected or diagnosed, learning to confront substance use disorder demands introspection, says Dr. Levin, because clinicians must abandon the judgment and stigma that often permeate encounters between physicians and patients living with addiction. “Medications for opioid use disorder are lifesaving,” says Dr. Levin, who compares treatment to the necessity of insulin injections to sustain the metabolic function of a person with diabetes or the imperative for a person with severe hypertension to have a prescription to avert stroke.



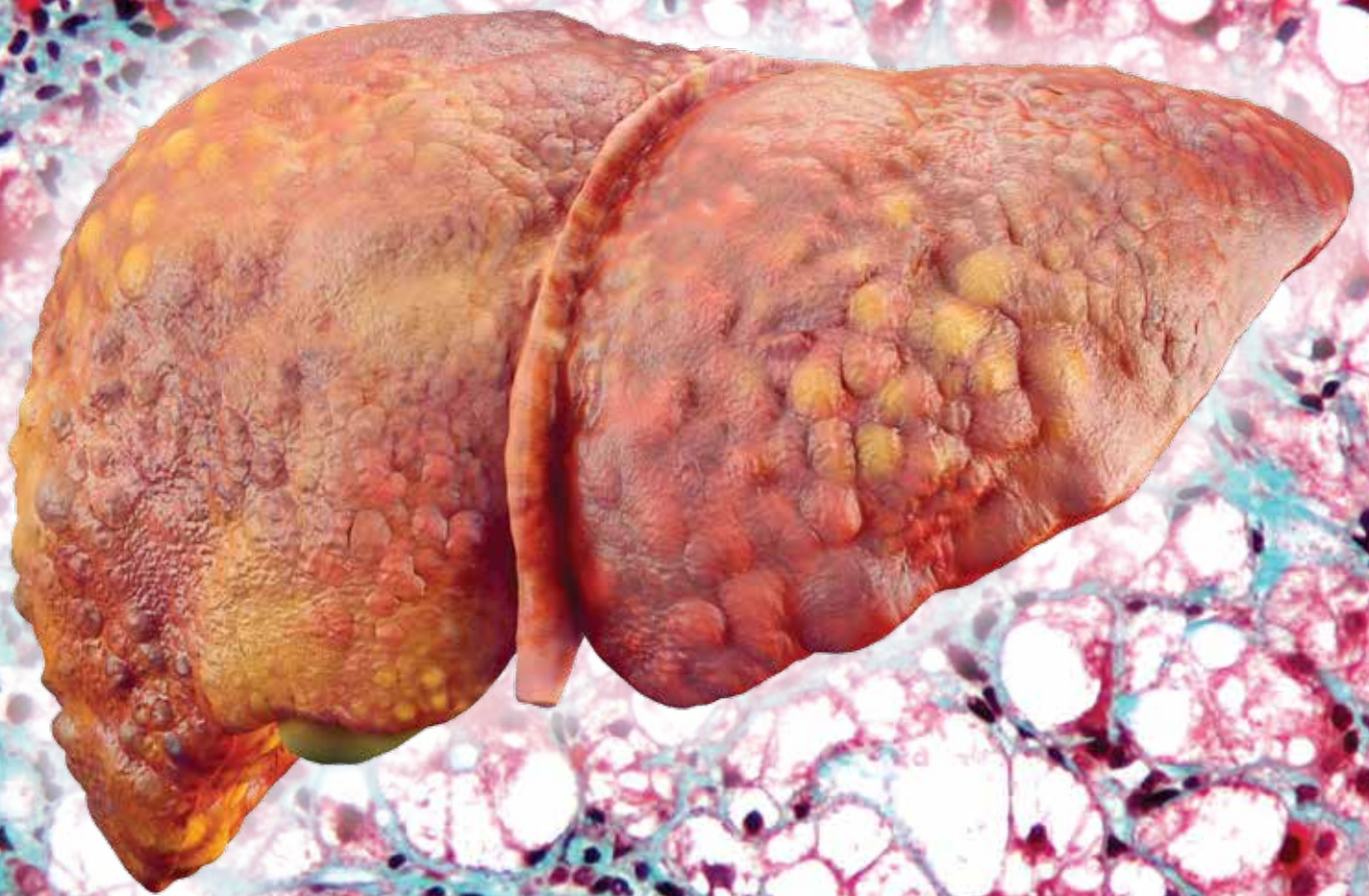
Nancy Chang

Medications for diabetes and other ailments are not enough, though. In addition to writing a prescription, most doctors urge their patients with metabolic syndrome to modify their diet, get moving, and reduce stress. For people with opioid use disorder, such supportive interventions include diagnosis and treatment of the underlying psychiatric disorders that afflict approximately 50 percent of people with opioid use disorder and personal and family support. “With buprenorphine, you can help people detox,” says Dr. Chang, “but to support them through their healing, there are other components. They need ongoing treatment for longstanding, unaddressed mental health conditions.”

Currently, says Dr. Chang, she and others who oversee internal medicine residents at Columbia are in the process of sorting out how to train residents not only in medication-assisted treatment but also in establishing a robust holistic, multidisciplinary support system necessary to address underlying issues after MAT puts an opioid use disorder on the back burner. “Early intervention is key,” says Dr. Levin. “People who are addicted don’t only talk about the physical hold of drugs, they talk about what led to the use—stress, trauma—until they developed an addiction that took over. You have to understand that to help people get into and maintain recovery.” ❖

Who’s Who

- Nancy Chang, MD, associate professor of medicine
- Frances R. Levin, MD, the Kennedy-Leavy Professor of Psychiatry
- Edward Nunes, MD, professor of psychiatry
- Mark Olfson, MD, professor of psychiatry (VP&S) and epidemiology (Mailman School of Public Health)
- Harold Pincus, MD, professor and vice chair of the Department of Psychiatry and co-director, Irving Institute for Clinical and Translational Research
- Muredach P. Reilly, MBBCh, the Herbert and Florence Irving Professor of Medicine and director, Irving Institute for Clinical and Translational Research
- Arthur Robin Williams, MD, assistant professor of clinical psychiatry





FAT:

The
Menace
Behind
This
Generation's
Liver
Disease

Columbia Scientists Fight a Hidden Epidemic in Children, Adults

Most people would need a search engine to identify the leading cause of chronic liver disease in the world today. A generation ago, alcohol or viruses would have been reasonable answers, but in recent years a new menace has supplanted both: fat.

Nonalcoholic fatty liver disease—NAFLD—is defined as an accumulation of lipids inside hepatocytes exceeding 5 percent of the weight of the liver. It now afflicts an estimated 25 percent of the global population. “It’s globally under-recognized,” says clinical investigator Julia Wattacheril, MD, director of the adult NAFLD program at Columbia.

Dr. Wattacheril leads a multidisciplinary team to confront this escalating public health crisis, covering everything from patient treatment and clinical trials to translational research, including genomics. It is a fertile field. “While there are some clear aspects of the disease and risk factors we know about, there’s also a huge amount of progression and regression of the disease that we fundamentally don’t understand. The unknowns are what make studying the disease so exciting—but also very urgent,” says Dr. Wattacheril.

One thing that is not a mystery is the cause of the epidemic, which has developed in lockstep with rising obesity rates. For most individuals, as body fat increases, some of the excess is stored in the liver,

By Alan Dove

FAT:

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ultimately leading to NAFLD. In the majority of patients, that is as far as the liver pathology goes. In about 20 percent of cases, however, the fatty liver becomes inflamed and scarred, leading to much more serious nonalcoholic steatohepatitis, or NASH. NASH can even progress to cirrhosis and liver cancer, and some scientists project that these sequelae of NAFLD will become the top causes of liver transplants by 2020. Understanding how NASH progresses—and how to prevent or reverse it in a diverse group of patients—is a major focus for the Columbia team.

While excess weight is the major cause of NAFLD, exhortations to eat less have not accomplished much. “It’s not just a matter of excess calories, it’s also that the type of foods eaten generally lack the amount of natural antioxidants that would be present in a diet replete with vegetables and fruits,” says Joel Lavine, MD, PhD, vice chair of research in pediatrics and chief of pediatric gastroenterology, hepatology, and nutrition. Antioxidant-poor diets

contribute to increased oxidative stress in the liver, causing damage to hepatocytes.

The damaged cells are the first link in a chain of problems. “They eventually die, and then there is release of inflammatory mediators by resident white blood cells and macrophages, resulting in scarring,” says Dr. Lavine. The scar tissue interferes with blood flow in the liver and results in the production of cirrhotic nodules.

FATTY LIVER IN CHILDREN

Perhaps the most distressing trend in the liver disease epidemic is the rise of NAFLD and NASH in children, which Dr. Lavine has observed firsthand. In some populations, patients as young as 2 years have fatty livers, and cirrhosis develops as early as age 8.

At the same time, children offer unique treatment opportunities. “Children could be more responsive to lifestyle interventions than adults,” says Dr. Lavine, “but they’re not the ones doing the shopping. If you can get the whole family to exercise together, to buy appropriate foods, and cook better meals, that matters.”

Certain vitamins also help. In two multicenter randomized controlled trials, Dr. Lavine and his colleagues found that natural vitamin E enhanced NASH resolution in children and adults, presumably by scavenging excess oxygen radicals in the patients’ livers. Findings from these studies, which were published in the *New England Journal of Medicine* and the *Journal of the American Medical Association*, have since been incorporated into standard treatment guidelines for both adults and children diagnosed with NASH.

Unfortunately, pediatric clinical trials are hard to orchestrate, especially for more powerful prescription drugs. One example is pioglitazone, a type 2 diabetes treatment that has significantly reduced progression from NAFLD to NASH in several studies. Because it has not been tested in children, though, its use is restricted to adult patients.

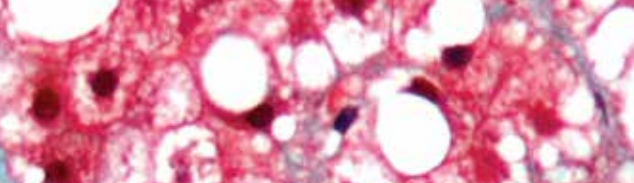
The shortage of good treatments also has hampered efforts to screen for NAFLD and NASH. Currently, patients often find out they have NAFLD by accident, as a result of routine laboratory testing or imaging for other complaints. A definitive diagnosis of NASH, meanwhile, requires a liver biopsy. Research on improved diagnostic techniques is limited.

“There’s no point in having a screen for a disease that you can’t do anything about and there’s



PORTRAITS BY JÖRG MEYER

Julia Wattacheril



also no point in developing a therapy for a disease where you don't find affected subjects," says Dr. Lavine. He expects new therapies and new diagnostic tests, particularly for NASH, to evolve over the next few years. Indeed, he already sees signs of that happening, with several therapies now in late-stage clinical trials and more researchers and physicians recognizing the scope of the problem. As co-chair of the steering committee for the NIH NASH Clinical Research Network for the past 16 years, Dr. Lavine oversees many of the ongoing multicenter initiatives to develop such diagnostics and therapeutic trials.

HEPATOLOGY OUTREACH

Broadening awareness to get more patients into treatment and clinical trials is a major focus for Columbia's Hepatology Outreach program. "We set up satellite offices in neighborhoods in the tri-state area that have a high density of liver disease and that don't really have any dedicated hepatologists," says Paul Gaglio, MD, the program's director. Satellite offices are in Chinatown in Manhattan, Hackensack in New Jersey, and in Cortlandt (New York-Presbyterian Hudson Valley Hospital), Eastchester, Somers, and Suffern in New York.

As a hepatology outreach map suggests, the geographic distribution of NAFLD is not random. Research has found strong correlations between fatty liver disease and ethnicity. For example, the rates of fatty liver disease in African-Americans are much lower than those in Hispanic-Americans for a given degree of obesity. Asian patients, meanwhile, appear to be the most susceptible, with many developing NAFLD and NASH after only a few pounds of weight gain.

The global melting pot of New York City provides an ideal environment for identifying these patterns and intervening appropriately. Early diagnosis can make a big difference, as dietary changes and exercise can stop the progression to NASH before it starts. "It's a much more difficult thing to start thinking about how to manage somebody with fatty liver disease who now has cirrhosis," says Dr. Gaglio.

Once the team gets patients connected with hepatologists, team members draw on the latest tools to track the disease's progress. While liver biopsy has long been the definitive test for NASH, less invasive imaging and laboratory tests can now



Paul Gaglio

track pathogenesis in patients with milder liver disease. "The only patients who are getting biopsied are patients who you're trying to determine if they have advanced fibrosis or if there is a potential alternative liver diagnosis," says Dr. Gaglio.

Dr. Gaglio echoes Dr. Lavine's assessment that improved diagnostic tools will help fuel improvements in treatment. That will be especially helpful for patients who have begun to progress to NASH or the majority for whom lifestyle interventions do not work. Because the disease advances through multiple mechanistic pathways, though, Dr. Gaglio does not expect a single "cure" to be the answer. Instead, physicians will likely need to determine the precise mechanisms at work in a given patient and select the treatment that works best against that phase of the pathology.

FROM LAB TO LIVER

Rapid advances in genomics and molecular biology are helping to move the field toward more tailored treatments. While environmental factors such as diet and lifestyle are major drivers of NAFLD and NASH, the ethnic differences in the disease's prevalence also point to genetic factors. Through large population studies, investigators have zeroed in on two genes in particular: *PNPLA3* and *TM6SF2*. The former encodes a lipase that breaks down triacylglycerol in fat cells,

Ethnic differences in the disease's prevalence also point to genetic factors, and researchers have zeroed in on two genes.

FAT:

The
Menace
Behind
This
Generation's
Liver
Disease

while the latter encodes a transmembrane protein whose function remains unknown.

“The variant of interest for *PNPLA3* has been associated with the entire spectrum of fatty liver pathology, and *TM6SF2* is associated mostly with lipid metabolism and aminotransferases and, in some populations, fibrosis,” says Dr. Wattacheril. Patients with specific variants of those two genes appear to be especially susceptible to NASH and other progressive forms of liver disease.

Dr. Wattacheril and her colleagues are interested in studying how those genetic factors interact with environmental influences. In collaboration with the Institute for Genomic Medicine, team members have performed exome sequencing on hundreds of their patients and are correlating results with the patients’ phenotypes. In collaboration with Dr. Lavine and the Nonalcoholic Steatohepatitis Clinical Research Network, an NIH-funded consortium, they have already analyzed pediatric patients with advanced fibrosis due to NAFLD and

although no specific variant was strongly associated with advanced fibrosis, the sample size was one limitation. “We need more genomic information about individuals with NAFLD, especially those with particular phenotypes of interest.”

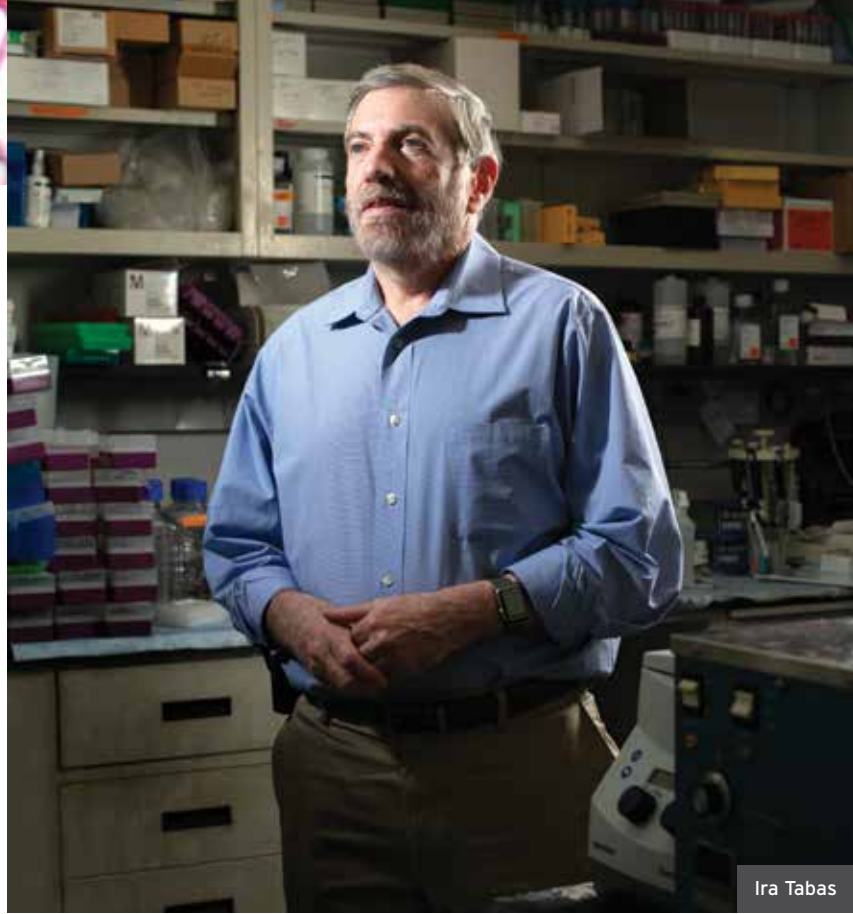
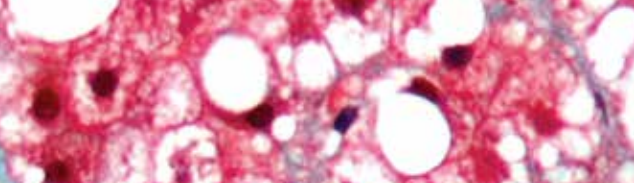
Dr. Wattacheril is also working with industry partners in the areas of biomarker discovery and precision medicine as part of a larger collaboration with the Irving Institute for Clinical and Translational Research. “Generally we think about 85 to 90 percent of individuals undergoing weight loss surgery should have nonalcoholic fatty liver disease,” says Dr. Wattacheril. “Individuals who do not are interesting; what is protecting their liver?” The general idea is to identify targets for therapeutic intervention as well as specific markers that could help separate patients into distinct risk groups for more precise treatment. Discovering at-risk groups can happen through traditional means—a clinician recognizing patients—but also via electronic health record phenotyping, something Dr. Wattacheril’s group is pursuing in collaboration with the Department of Biomedical Informatics.

Throughout Dr. Wattacheril’s program, the emphasis is on connecting patient care directly to cutting-edge research, a cross-disciplinary approach that is unusual for traditional clinics. “That’s something that doesn’t exist in other programs, and it’s actually why we’ve been able to recruit so many patients into the precision medicine initiative and sequencing projects. We discuss research at every visit.” says Dr. Wattacheril.

The intense focus on translational research is no accident. Beginning in 2015, Dr. Wattacheril structured the NAFLD program to serve as a model for other efforts around the country, a concept that could scale quickly given a team-based approach. This integrated model works well: The NAFLD clinic and subsequently all of the Center for Liver Disease and Transplantation formed one of the beta launch sites for the All of Us Research Program, a \$1.4 billion NIH-funded effort to gather health, environment, and genetic data from 1 million people as a base for future large-scale studies. A major part of that project is to engage patients directly with researchers. “Translational medicine comes alive when you have providers who are seeing patients, asking specific research questions, and communicating those results in real time to patients. The urgency of patient care keeps everyone motivated; the challenge is the pace with which data are emerging,” she says.



Joel Lavine



Ira Tabas

HEALING OUT OF CONTROL

At the other end of the translational pipeline are scientists such as Ira Tabas, MD, PhD, vice chair of research in the Department of Medicine. Dr. Tabas' laboratory is trying to understand one of the central mysteries of fatty liver disease: Why do some patients progress to NASH while most do not? "The obvious answer is that it's genetics, and there are some genes that are important, but they only define a minority of cases," says Dr. Tabas.

The transition from NAFLD to NASH features three major changes in the liver: inflammation, cell death, and fibrosis. Fibrosis correlates most closely with the progression of the disease. To find the mechanisms driving it, he and his colleagues rely on a combination of human clinical data, experiments in cultured cells, and genetically engineered mice.

It takes several molecular steps to drive the complex pathogenesis of NASH. "When the early NASH process is beginning, proteins secreted by hepatocytes can act on cell surface receptors on hepatic stellate cells that turn on activation programs," says Dr. Tabas. The stellate cells then begin forming scar tissue.

Dr. Tabas' team has been working on two complementary processes related to NASH fibrosis. The first involves a protein made in liver cells called TAZ that Xiaobo Wang, PhD, in his lab discovered gets turned on when humans and experimental animals start to progress from fatty liver to NASH. Says Dr. Tabas: "TAZ activates a program that causes stellate cells to make fibrous tissue. When liver cell TAZ is silenced in animal models of NASH using a type of therapy that is currently approved for other uses in humans, NASH fibrosis can not only be pre-

vented but also reversed." He is collaborating with pharma to find ways to target TAZ in the NAFLD-to-NASH pathway.

The second process involves a protein called MERTK, which when activated also causes activation of stellate cells and NASH fibrosis. The role of MERTK in NASH has a basis in human genetics. Interestingly, MERTK drives several aspects of wound healing in other settings. "The irony here is that this healing gene makes NASH worse," says Dr. Tabas. He hypothesizes that the metabolic imbalance of NAFLD perverts the normal healing process. Scar formation would normally help a physically injured liver repair itself, but in NASH it gets out of control, leading to further injury instead.

Uncovering the underlying mechanisms of NASH is only the first part of the process for Dr. Tabas. "The proof of the pudding is what is relevant to people and most importantly what is tractable from a translational point of view," he says.

The translational research at Columbia is part of a broader push by scientists and physicians worldwide, all trying to tackle the immense public health threat of NAFLD and NASH. "Where else do you find a field with hundreds of millions of affected people and no FDA-approved drug?" asks Dr. Tabas. "Translational researchers and drug companies are stepping over themselves to try to come up with something." ❖

"Generally we think about 85 to 90 percent of individuals undergoing weight loss surgery should have nonalcoholic fatty liver disease. Individuals who do not are interesting; what is protecting their liver?"

Who's Who

- Paul Gaglio, MD, professor of medicine (in surgery) at CUMC
- Joel Lavine, MD, PhD, professor of pediatrics (in the Institute of Human Nutrition)
- Ira Tabas, MD, PhD, the Richard J. Stock Professor of Medicine (Immunology) and professor of pathology & cell biology (in physiology & cellular biophysics)
- Julia Wattacheril, MD, assistant professor of medicine at CUMC

Alumni News & Notes

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

1948

At this year's alumni reunion, **Henry Shinefield**, emeritus clinical professor of pediatrics and dermatology at UCSF, gave a talk, "Worth the Wait: New Insights into the Mechanisms and Use of Bacterial Interference," at the Alumni Day symposium.

1949

James Malm was honored this year when a patient's family raised funds to establish the James R. Malm, MD, Professor-

when he was age 9. The Roskind family, grateful for the care Scott received as a child, founded the Babies Heart Fund in 1986 with several families and in 2012 began soliciting gifts from family and friends to create the Malm professorship. In April, Scott and his father, Robert, traveled to Florida to present James with his professorship medallion.

1952

Marianne Wolff, professor emerita of clinical surgical pathol-

1955

Marilyn Heins is a retired pediatrician and parenting expert who has written a parenting column for the Arizona Daily Star since 1989. She is CEO of ParentKidsRight.com, a website that since 1999 has offered information for parents, grandparents, and teachers about raising children in today's world. She writes parenting tips for the website and answers questions about parenting. She recently started writing poetry, including one on Page 4 of this issue.

1956

See Alumni in Print to read about a book by **Oliver Cobb**. Ollie, a retired urologist, lives in Shoreline, Wash. His book is the culmination of a goal he

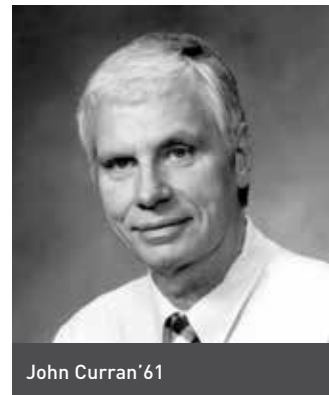


Oliver Cobb '56

set for his retirement: Learn Spanish. He notes that the cover includes a photo he took of his reflection in a photograph of Christine Keeler.

1961

See Alumni in Print to read about a book by **John Curran**. The book includes, in part, some of his 1960s adventures while a medical student and psychiatric resident at Columbia. "Those years remain quite dear to me



John Curran '61

both because of the many friendships I developed while there as well as their lasting influence on my medical career."

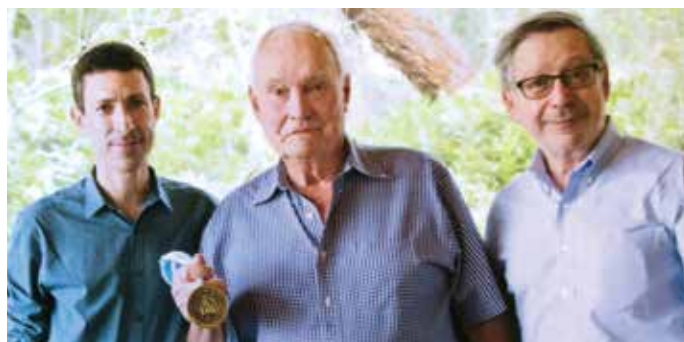
1962

Peter Puchner, professor emeritus of clinical urology at VP&S, received the VP&S Distinguished Service Award in Clinical Science at the 2018 graduation ceremony.

John N. Sheagren received the Clinical Teacher Award from the Michigan Infectious Disease Society at its 2018 annual meeting. Carol Kauffman, society president, presented the award to Dr. Sheagren "in recognition of exemplary teaching, implementation of innovative educational programs, and outstanding communication skills." John is professor of medicine at



John N. Sheagren '62
with Carol Kauffman



James Malm '49, center, with Scott Roskind, left, and E. Robert Roskind

ship of Pediatric Cardiovascular Medicine and Surgery in the Division of Pediatric Cardiology at VP&S. James, now 93, served as chief of cardiothoracic surgery at Columbia for more than 30 years. He performed two surgeries on Scott Roskind—one when Scott was a baby and another

ogy & cell biology at VP&S, received the VP&S Distinguished Service Award in Basic Science at the 2018 graduation ceremony.

1954

P. Roy Vagelos delivered the graduation address to the Class of 2018 at VP&S in May.

➤ *send your news via mail, fax,
or email:*

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New York, NY 10032

Fax: 212-305-4521

Email: columbiamedicine@columbia.edu



Graduation Honorees



1: Peter Puchner '62 with CU Trustee Ken Forde '59 and Dean Lee Goldman.

2: Paulette Bernd '80 PhD

3: Gail Williams '68 with Drs. Forde and Goldman



2



3



4



5

4: Magdalena Sobieszczyk '98 with CU Trustee Rolando Acosta and Dr. Goldman

5: Marianne Wolff '52 with Dr. Forde

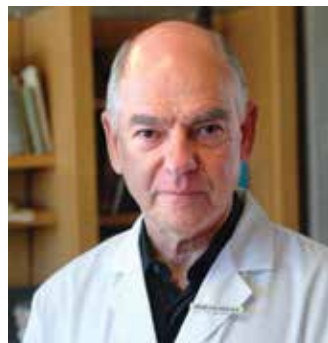
the Michigan State University College of Human Medicine and a core faculty member of the Spectrum Health internal medicine residency training program in Grand Rapids.

1963

Carmen Ortiz-Neu was honorary Dean's Day chair at this year's alumni reunion.

1965

See Alumni in Print to read about a book by **Avrum Bluming**. Avrum is a hematologist, medical oncologist, and emeritus clinical professor of medicine at the University of Southern California. He has been studying the positive effects of hormone replacement therapy for more than 25 years and wants the book he co-wrote to provide the evidence that physicians



Avrum Bluming '65

and their patients need to make informed decisions about HRT.

1967

At this year's alumni reunion, **William Lee** received a gold medal for outstanding achievements in clinical medicine. He is professor of internal medicine and holder of the Meredith Mosle Chair in Liver Diseases at

the University of Texas Southwestern Medical School and has divided his career between clinical research and care of patients with all forms of hepatitis. He has been the principal investigator for four clinical networks funded by the National Institute of Diabetes, Digestive and Kidney Diseases. He has mentored generations of students, residents, and fellows and devoted a large amount of time to teaching and direct patient care in hospitals and clinics for private and public patients. Medals were presented at the reception and dinner dance held at the Chelsea Piers.

1968

At this year's alumni reunion, **Estelle Bender** was host of Alumni Day. She also chaired the 50-year anniversary class for the reunion.

At this year's alumni reunion, **Virginia Utermohlen**, associate professor emerita in the nutritional sciences division at Cornell University, gave a talk, "Adventures of a Health Care Advisor," during the Alumni Day symposium.

Gail Williams, professor of medicine at VP&S, received the Leonard Tow Humanism in Medicine Award presented by the Arnold P. Gold Foundation at the 2018 VP&S graduation ceremony.

1969

John P. Bilezikian was one of approximately 100 Americans who received a 2018 Ellis Island Medal of Honor. Medals are awarded annually to American citizens who exemplify a life dedicated to community service. "These are individuals who pre-



John P. Bilezikian '69

serve and celebrate the history, traditions, and values of their ancestry while exemplifying the values of the American way of life and who are dedicated to creating a better world for us all," said the Ellis Island Honors Society. John is the Dorothy and Daniel Silberberg Professor of Medicine and professor of pharmacology at VP&S. For Armenia, his ancestral homeland, John has delivered, over the past decade, instrumental capability and educational resources needed to diagnose osteoporosis, improve awareness, initiate cutting-edge clinical research, and be at the forefront of knowledge in the field. In October 2017, he founded the Osteoporosis Center of Armenia. He has received, among many honors, the Distinguished Physician and Distinguished Educator Awards of the Endocrine Society, the Frederic C. Bartter Award of the American Society for Bone and Mineral Research for Excellence in Clinical Research, and the Gideon A. Rodan Excellence in Mentorship Award. He has received lifetime achievement and recognition awards from the California and Boston Armenian American Medical Societies and the Armenian American Health Professionals Organization. He received the Doctor Honoris Causa Award from the Carol Davila School of Medicine in Bucharest, Romania, and from the University of Pisa, in Pisa, Italy.

See Alumni in Print to read about a new book co-edited by **James A. Reiffel**. He is professor emeritus of medicine at VP&S.

1973

At this year's alumni reunion, **Jeffrey A. Whitsett** received a gold medal for outstanding achievements in medical research. He is the Kindervelt Professor of Pediatrics at the University of Cincinnati, co-director of the Perinatal Institute, and chief of neonatology, perinatal, and pulmonary biology research at Cincinnati Children's Hospital Medical Center. He has made major contributions in pulmonary medicine and biology in his studies of the surfactant proteins A, B, C, and D, cloning their genes and elucidating their roles in lung development and function. Medals were presented at the reception and dinner dance held at the Chelsea Piers.

1974

See Alumni in Print to read about a book by **Jane M. Orient**. Jane was an ambulatory care physician and instructor in internal medicine at the University of Arizona for five years after completing her



Jane M. Orient '74

residency. She has been in private practice since 1981 and executive director of the Association of American Physicians and Surgeons since 1989.

1976

At this year's alumni reunion, **Jay Lefkowitz** gave a talk, "Orpheus and Aesclepius: The Story of Music and Medicine," during the Dean's Day Program. Jay is professor of pathology & cell biology at VP&S.

1977

See Alumni in Print to read about a book by **Bob Baker**. Bob has 35 years of experience as a physician, author, and speaker whose passion in medicine centers on the patient. A professional magician and ventriloquist, he has appeared on "America's Got Talent." His business card says "The magic of



Bob Baker '77

medicine begins with the doctor/patient connection."

1978

Robert Lauer has a letter published in this issue, Page 2.

Michael Jacobs: Orioles Doctor

Michael A. Jacobs '79, Baltimore Orioles team orthopedist for 13 years, never applied for the job. Michael was approached by the team's owner, Peter Angelos, and initially refused the offer. The team's former doctor of 30 years, Charles "Chick" Silberstein, helped him change his mind.

During Michael's first period with the Orioles, from 1994 to 2002, he helped revolutionize the team's process of signing new players. He said that made the Orioles the first MLB team to make medical status a condition of a new player's signing. New players were required to pass medical exams and medical history reviews before signing.

Michael returned to the Orioles in 2013. He has accompanied the team to three national playoffs since 1994. In addition to his work with the Baltimore Orioles, Michael is a faculty member in orthopedics at Johns Hopkins University and regularly sees patients at MedStar Union Memorial Hospital in Baltimore, where he specializes in hip and knee reconstructive surgery.

He was elected to Alpha Omega Alpha in medical school and is a member of the American Orthopaedic Association.

Michael Jacobs '79 with former Orioles Jim Palmer and Boog Powell



James Nepola, professor of orthopedics and rehabilitation at the University of Iowa, received two awards this year. He received the inaugural Teacher of the Year award from the residents in his department.



James Nepola '78

“It was one of the first times in my life when I was truly at a loss for words,” Jim says. He called it a testimonial to his teachers at VP&S and the New York Orthopedic Hospital. “All I am as a doctor comes from my training and experience at Columbia.” His second award was the Marion L. Huit Faculty Award, presented annually to honor outstanding work with students, exceptional scholarship, and dedicated service to the University of Iowa and Iowa City communities.

1980 PhD

Paulette Bernd, professor of pathology & cell biology at VP&S, received the Charles W. Bohmfalk Award at the 2018 VP&S graduation ceremony for teaching in the pre-clinical years.

1981

At this year’s alumni reunion, **Brenda Aiken** received a gold medal for meritorious service to VP&S and its alumni association. Brenda, director of the medical service for Columbia University Student Health Services at the Morningside cam-

pus, was president of the VP&S Alumni Association from 2014-16. Medals were presented at the reception and dinner dance held at the Chelsea Piers.

1982

At this year’s alumni reunion, **Elaine Abrams**, professor of epidemiology at Mailman School of Public Health and of pediatrics at VP&S, received the Virginia Kneeland Frantz’22 Distinguished Women in Medicine Award.

1983

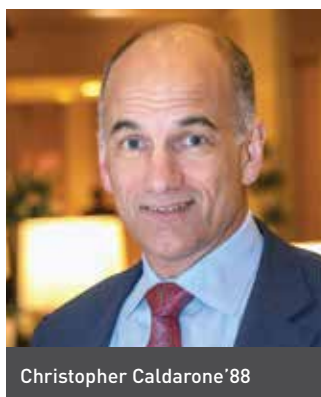
At this year’s alumni reunion, **Adam J. Rovit**, who has a pediatric ophthalmology and strabismus practice in Las Vegas and is former president of the Nevada Academy of Ophthalmology, gave a talk, “Treatment for Progressive (High) Myopia,” during the Alumni Day symposium.

1986

Kimberly A. Yonkers, professor of psychiatry, epidemiology (chronic disease), and obstetrics, gynecology & reproductive sciences at Yale School of Medicine, has been named director of the Section of Psychological Medicine within the Department of Psychiatry and Behavioral Health of Yale New Haven Hospital. Interim director since last year, Kim was chosen following a national search. She is known for groundbreaking work on the treatment of mood disorders, particularly those that complicate the reproductive health of women, and for studies that target the important, under-recognized, and inadequately treated problem of depressed mothers who are also suffering with addiction. She is director of the Center for the Wellbeing of Women and Mothers at Yale. She also is editor of the journal *Psychiatric Research and Clinical Practice*.

1988

Christopher Caldarone has joined Texas Children’s Heart Center as chief of congenital heart surgery. Chris, who will be professor of congenital heart surgery at Baylor College of Medicine, moved to Texas from the Hospital for Sick Children in Toronto, where he completed a fellowship in congenital heart surgery and most recently served as surgeon-in-chief. He completed his general surgery



Christopher Caldarone '88

and cardiothoracic surgery residencies at Beth Israel Deaconess Medical Center/Harvard Medical School.

1990

Joshua Hyman received an Arthur Huene Award this year at the Pediatric Orthopedic Society of North America annual meeting in Austin. Joshua, associate professor of orthopedic surgery at VP&S, received the award for his project, “Evaluating the role of patellar realignment in patients with cerebral palsy.” The Arthur H. Huene Memorial Award recognizes active POSNA members for excellence and promise in pediatric orthopedics.

Christina Johnson has been named CEO of Longmont United Hospital in Longmont, Colo. She has more than 20 years of clinical and operational



Christina Johnson '90

experience. She earned an MBA from the University of Denver.

Craig Samitt has been named president and CEO of Blue Cross and Blue Shield of Minnesota. He previously served as executive vice president and chief clinical officer at Indianapolis-based Anthem insurance.

1992

John Barrett has been named executive medical director of the Community Physician Group at University of Utah Health, an academic medical center in the Mountain West. In his new role, John leads a group of 205 primary care providers in 10 community clinics. The clinics



John Barrett '92

play a significant role in the life of thousands of Utahns, with more than 300,000 patient visits each year. John joined the University of Utah in 2013, where he has served as the

medical director of urgent care services and on-demand care. He has experience serving rural communities in New Mexico, Arizona, and Utah and was twice awarded the U.S. Public Health Service Achievement Medal. He was named 2018 Utah Physician of the Year by the Utah Association of Physician Assistants for teaching and advocating throughout his career for advanced practice clinicians.

At this year's alumni reunion, **Carol Chou**, associate professor of clinical medicine at the University of Pennsylvania, gave a talk, "From Orchestras to Osler: Music as a Life Force in an Internist's Career," during the Dean's Day Program.

William Macaulay has been appointed chief of the Division of Adult Reconstructive Surgery in the Department of Orthopedic Surgery at NYU Langone Health. Bill joined NYU Langone in January 2017 as medical director for International Patient Services. He oversaw an expansion of the health system's program that matches international patients with top physicians in a wide variety of medical and surgical disciplines. He will continue in that role while chief.

David P. Ryan was one of three individuals who received honorary degrees in May 2018 from



David P. Ryan '92

the College of the Holy Cross, his undergraduate alma mater. David, professor of medicine at Harvard, is chief of hematology and oncology at the Massachusetts General Hospital, clinical director at the Mass Gen Cancer Center, and an expert in the research and treatment of gastrointestinal cancers.

1992 PhD/1994 MD

See Alumni in Print to read about a book by **Calvin Chou**. Calvin is professor of clinical medicine at UCSF, director of the UCSF-VALOR program, and vice president for external education at the Academy of Communication in Healthcare.

1994

Jonathan Chen has joined Children's Hospital of Philadelphia as chief of cardiothoracic surgery, co-director of the cardiac



Jonathan Chen '94

center, and the Mortimer J. Buckley Jr. MD Endowed Chair in Pediatric Cardiothoracic Surgery. Jonathan completed his general surgery residency and cardiothoracic surgery fellowship at Columbia and joined the VP&S and Weill Cornell faculties, serving as chief of pediatric cardiovascular services and the David Wallace-Starr Foundation Professor at Weill Cornell and surgical director of the pediatric heart transplant program at Columbia until 2013. He joined

CHOP from Seattle, where he was chief of congenital cardiac surgery at Seattle Children's Hospital and co-director of the heart center and professor of surgery at the University of Washington. He also held the Sam and Althea Stroum Endowed Chair in Pediatric Cardiovascular Surgery.

1995

Metacrine Inc., a biotechnology company developing therapies to benefit patients with liver and gastrointestinal diseases, has appointed **Hubert C. Chen** as chief medical officer. Hubert, a board-certified endocrinologist with expertise in both clinical medicine and basic science



Hubert C. Chen '95

research, joined Metacrine after serving as chief medical and scientific officer at Pfenex Inc. His biotechnology career has spanned early to late stage clinical development in multiple disease areas.

Kathie-Ann Joseph, associate professor of surgery at NYU Langone Medical Center, chief of breast services at Bellevue Hospital, and co-director of the Bea Welters Breast Health Outreach and Navigation Program, completed her term as president of the VP&S Alumni Association at the 2018 alumni reunion.

1995 PhD/1996 MD

Andrew Cheng has been named president and CEO of Akero

Therapeutics, a biotechnology company developing treatments for nonalcoholic steatohepatitis (NASH) and other serious metabolic diseases. Andrew joined Akero Therapeutics after nearly two decades at Gilead Sciences, where he most recently was chief medical officer and executive vice president. Akero's new headquarters is San Francisco.

1997

Benjamin Roye, assistant professor of orthopedic surgery at VP&S, received an Arthur Huene Award this year at the Pediatric Orthopedic Society of North America annual meeting in Austin. Ben received the award for his project on adolescent idiopathic scoliosis, "Bracing for AIS: What makes the difference? Examining the reciprocity of quality and duration." The Arthur H. Huene Memorial Award recognizes active POSNA members for excellence and promise in pediatric orthopedics.

1998

Magdalena Sobieszczyk, associate professor of medicine at VP&S, received the Charles W. Bohmfalk Award at the 2018 VP&S graduation ceremony for teaching in the clinical years.

2000

Anne Michels has joined USC Student Health at the University of Southern California as a full-time gynecologist. She also holds a faculty appointment at USC's Keck Medicine. She will care for USC students on the University Park and Health Sciences campuses of USC. Anne completed residency training in OB/GYN at New York-Presbyterian in 2004, then obtained her California state license. Says the native New Yorker: "Looking for a change, we moved our family from New York City out to Los Angeles. I fell in love with



Anne Michels '00

the sunny weather and have made Southern California my home since.” She lives in the Pasadena area with her husband and three children.

2003

At this year’s alumni reunion, **Brian Benson**, chair of otolaryngology/head and neck surgery at Seton Hall’s Hackensack Meridian School of Medicine, gave a talk, “Common Ear, Nose, and Throat Problems of Wind Instrumentalists: A View from Both Sides of the Podium,” at the Alumni Day symposium.

2005

Alexandra Spessot has been named chief medical officer for Monarch, a nonprofit in North Carolina that provides services and support to people with intellectual and developmental disabilities, mental illness, and substance use disorders throughout the state. As chief medical



Alexandra Spessot '05

officer, Alex will ensure that all medical administrative processes for the organization’s behavioral health locations and telemedicine processes meet health care standards and provide a continuum of care to approximately 30,000 people. She will provide oversight and direction for nearly 50 medical providers at Monarch. She joined Monarch after serving as director of psychiatric emergency care at the Durham VA Medical Center in Durham, N.C.

2007

At this year’s alumni reunion, **Lisa F. Schneider**, a plastic & reconstructive surgeon at the Institute for Advanced Reconstruction in Jersey City, N.J., gave a talk, “The Magician’s Secret: Unlocking the Meaning of Rembrandt’s ‘The Anatomy Lesson of Dr. Nicholas Tulp,’” during the Dean’s Day Program.

2008

Oluwaseun Akinbo has joined the medical staff of HaysMed in Hays, Kan. An orthopedic surgeon, Oluwaseun completed a residency in orthopedic surgery at Howard University in Washington, D.C., where he was the administrative chief resident during his final year of residency. He also served on the house-staff executive council and the orthopedic education committee. He completed a fellowship in hip and knee replacement surgery at



Oluwaseun Akinbo '08

New England Baptist Hospital in Boston. He focuses on primary and revising hip/knee replacement, fracture management, and general orthopedics.

See Alumni in Print to read about **Daniela Lamas’** first book. Daniela is on the faculty of Harvard Medical School and a pulmonary and critical care doctor at the Brigham &



Daniela Lamas '08

Women’s Hospital in Boston. She completed internship and residency at Columbia before returning to Boston for a subspecialty fellowship.

Thomas Lo assumed the presidency of the VP&S Alumni Association at this year’s alumni reunion weekend. He also prepared dessert for the Alumni Day luncheon in Bard Hall.

2009

See Alumni in Print to read about the latest book by **Jacob M. Appel**. Jacob continues to write books of poetry and short stories and plays in his career as a physician, attorney, and bioethicist.

2012

Charlene Ong, assistant professor of neurology at Boston University, received a Peter Paul Career Development Professorship, given to outstanding junior faculty at BU to fund research and scholarly or creative work for three years.



Charlene Ong '12

2013

At this year’s alumni reunion, **Peter Liou** gave a talk, “Taking Cues: How Music Prepared Me for a Career in Surgery,” during the Dean’s Day Program.

2014 and 2015

James Todaro’14 completed an ophthalmology residency while simultaneously launching a telehealth company and becoming a managing partner for a hedge fund. He now devotes all of his time as CEO of his company, MedX Protocol, and as managing partner of the hedge fund, Blocktown Capital, based in Michigan. James started investing in digital currency and blockchain technology in 2013 and now speaks on the subject at conferences. “I believe blockchain will radically disrupt current health care patterns and infrastructure,” he writes. Co-founder **Moshe Praver’15** completed two years of neurosurgery residency at Northwestern before deciding to focus more time on the company.

2018

At this year’s alumni reunion, **Sarah Godfrey** received a gold medal in recognition of interest in and devotion to VP&S and its alumni association. Medals were presented at the reception and dinner dance held at the Chelsea Piers.



Clinicians Honored

The second class of Columbia clinicians was inducted into the Academy of Clinical Excellence at VP&S in May. The 35 new faculty join the faculty who were among the inaugural class inducted in 2017.

The academy honors the accomplishments of faculty members who contribute to the VP&S academic mission by providing high quality, evidence-based, and humanistic patient care. Members will work on committees that support faculty and trainee mentorship, plan special lectures and events, and lead communications efforts. All members, who have been at Columbia for five or more years, spend more than 50 percent of their time on patient care and training the next generation of clinicians.

VP&S ALUMNI WHO ARE NOW MEMBERS OF THE ACADEMY:

Linda Jenettee Addonizio '78, Pediatrics
 Michael Argenziano '92, Surgery
 Stan D. Arkow '77, Psychiatry
 Jeffrey A. Ascherman '88, Surgery
 Evelyn Attia '86, Psychiatry
 Robert C. Basner '83, Medicine
 Mitchell C. Benson '77, Urology
 Marc Brown '91, Radiology
 John C.M. Brust '62, Neurology
 Nancy Chang '95, Medicine
 Stanley Chang '74, Ophthalmology
 Guarionex Joel DeCastro '04, Urology
 Marc L. Dickstein '87, Anesthesiology
 Pamela U. Freda '88, Medicine
 Maria C. Garzon '88, Dermatology and Pediatrics
 Peter L. Geller '80, Surgery
 Robin S. Goland '80, Medicine
 Scott M. Hammer '72, Medicine
 Joshua E. Hyman '90, Orthopedic Surgery
 Robert Kazim '87, Anesthesiology



Judith Korner '92 PhD/'93MD, Medicine
 Salila Kurra '03, Medicine
 James A. Lee '99, Surgery
 Charles J. Lightdale '66, Medicine
 Robert McConnell '73, Medicine
 Paul C. McCormick '82, Neurological Surgery
 James M. McKiernan '93, Urology
 John Gregory Mears '73, Medicine
 Russell Miller '01, Obstetrics & Gynecology
 Sara Nash '05, Psychiatry
 Donald Oliver Quest '70, Neurological Surgery
 LeRoy E. Rabbani '84, Medicine
 Melvin P. Rosenwasser '76, Orthopedic Surgery
 David Price Roye '75, Orthopedic Surgery
 Carrie B. Ruzal-Shapiro '82, Radiology
 David I. Sahar '80, Medicine
 Peter L. Salgo '75, Anesthesiology and Medicine
 Allan Schwartz '74, Medicine
 Peter A. Shapiro '80, Psychiatry
 Robert J. Strauch '82, Orthopedic Surgery
 Byron M. Thomashow '74, Medicine
 Stephen L. Trokel '65 MSD, Ophthalmology
 Michael G. Vitale '95, Orthopedic Surgery
 Mark Weidenbaum '81, Orthopedic Surgery
 Robert A. Whittington '90, Anesthesiology
 Bryan J. Winn '00, Ophthalmology



Building a Bridge of Medical Knowledge, the Wu Family Way

By Peter Wortsman

Fulfilling a cherished dream of the late Clyde Wu'56, distinguished academic cardiologist, philanthropist extraordinaire, and the longest-serving trustee of Columbia University, VP&S faculty members engaged with their counterparts at Zhejiang University School of Medicine in Hangzhou, China, at the two-day “Frontiers in Biomedicine: 2017 Joint Forum of ZJU School of Medicine and Columbia P&S” in October 2017. It was the first collaborative educational initiative sponsored by the Wu Family China Center for Health Initiatives.

The event was hosted by Yi Sun, MD, PhD, dean of the ZJU School of Transitional Medicine, and co-organized by Anke Nolt-ing, PhD, inaugural administrative director of the Wu Family China Center, and Stanley Chang'74, co-chair of the center's faculty committee. The event was held on the main ZJU campus in Hangzhou.

The Wu Family China Center for Health Initiatives is the culmination of the philanthropic largesse of Dr. Wu and his wife, Helen, whose commitment to Columbia included six named professorships, a named auditorium in the new Vagelos Education Center, and the Wu Fellows Program that supports Chinese physician-scientists to pursue advanced training at VP&S. The center, gener-



Chen Zhu, center, who received the 2017 Dr. Clyde and Mrs. Helen Wu Award in International Understanding, is shown with Roger Wu and Lady Ivy Wu.



Clyde Wu'56

ously supported by Wu family and friends, has a mission “to permit faculty from outstanding institutions to put their minds together to pursue collaborative research, clinical care, and teaching in the medical sciences of potential benefit to all.”

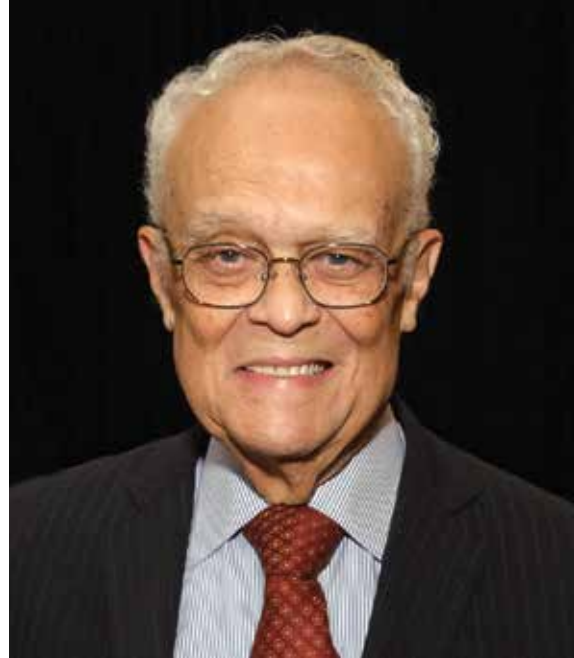
Distinguished faculty members from the two institutions presented their cutting-edge research in a variety of fields, including oncology, cardiology, translational medicine, osteoporosis, ophthalmology, infectious diseases, HIV, and venereal diseases, and visited labs and teaching facilities at ZJU and its affiliated hospitals. Presenters included Michael Yin'96, associate professor of medicine at VP&S, the first VP&S faculty member to work on collaborative research with colleagues at ZJU. His Columbia lab, in turn, welcomed Dr. Junwei Su, the first visiting fellow from ZJU hosted by the Wu Center.

The high point of the symposium was an award ceremony at which Lady Ivy Wu, sister-in-law to Clyde and Helen Wu, and Dr. Roger Wu, Clyde and Helen Wu's oldest son, represented the Wu family. They bestowed the 2017 Dr. Clyde and Mrs. Helen Wu Award in International Understanding on Chen Zhu, MD, PhD, who received an honorary Doctor of Science degree from Columbia in 2016. Dr. Chen, president of the Red Cross of China and China's former Minister of Health, is a former Wu Fellow who pursued research in the United States.

Dr. Chen delivered an account of his career as a research hematologist whose approach—integrating traditional Chinese medicine and Western molecular immunology—led to the development of the first effective treatment for a form of leukemia. As Minister of Health from 2007 to 2013 and then as president of the Red Cross Society of China, Dr. Chen has been devoted to improving China's health care system. “A decent standard of living, adequate nutrition, health care, education, decent work, and the protection against calamities are not just development goals,” he said. “They are also human rights. To uphold the right to health is an integral and essential part of policymaking in China.” In March 2018, Dr. Chen was elected to a second term as vice chairman of the Standing Committee of the National People's Congress, among the few biomedical scientists to hold high political office.

Gerald Thomson '96 VP&S Hon.: The Breadth of a Physician's Commitments

By Peter Wortsman



Gerald Thomson, MD, who received an honorary VP&S degree in 1996, is the Samuel Lambert Professor Emeritus of Medicine and the Robert Sonneborn Professor Emeritus of Medicine at VP&S. His 48 years as a member of the Columbia faculty have involved a range of local and national commitments and efforts including as a clinician, teacher, and director of a maintenance dialysis program. He also has been an advocate for justice and human rights in health and health care, director of medicine at Harlem Hospital Center, chief medical officer and executive vice president for professional affairs at the former Columbia-Presbyterian Medical Center, senior associate dean at what is now VP&S, chair of the American Board of Internal Medicine, and president of the American College of Physicians. He has addressed disparities in health and health care and reviewed the involvement of physicians in the interrogation and torture of post 9/11 U.S. detainees. Dr. Thomson reflected on the highlights of his long career in two interviews conducted in April 2018.

From Harlem to Howard

Born at the Women's and Children's Pavilion at the Presbyterian Hospital to immigrant parents from Jamaica, Gerald Thomson grew up as a young child in Harlem and Washington Heights. The family saw the "Medical Center" and its Vanderbilt Clinic as their "doctor." Later, he had part-time jobs after school throughout high school and college to help the family make ends meet. In 1952, he returned to Queens College after military service and continued working at outside jobs. He was determined to become a doctor "for as long as I could remember."

Despite the impact of the outside work on his grades, he thought he had done well enough to get into medical school, but he faced discouragement of other kinds. A college faculty member told him: "You colored boys always want to be doctors. You'd be better off if you joined the plumbers' union."

"I never forgot those words," Dr. Thomson still winces at the sting of the memory. "Today I call it negative mentoring. It made me angry, and all the more determined."

Of the 17 American medical schools to which he applied, he was admitted to two, Howard University's medical school in Washington, D.C., and Meharry Medical College in Nashville, both historically African-American schools. "There have often been thoughts that if it had not been for Howard and Meharry, how many would not have had the opportunity to care for patients in their communities, to contribute leadership and advocacy," Dr. Thomson says. He ultimately chose to attend Howard partly because one of his part-time jobs, as a Red Cap at Grand Central Station, allowed him to become a member of the railroad union so he could travel free between New York and Washington, but not to Nashville. "It was a matter of carfare," he says.

"At medical school," Dr. Thomson recalls, "I was not working at an outside job for the first time since high school, so I could devote myself entirely to learning. It was a great privilege."

Performing at the top of his class, he earned a full scholarship and came to the attention of William Hawthorne, MD, PhD, the preeminent chair of physiology, who invited him to participate in research.

Dr. Thomson says his greatest benefit from Howard came when he was registering for his sophomore year and met a freshman, Carolyn Webber. He carried her books home. They have been carrying each other's books ever since, through 60 years of marriage. Dr. Webber is now a retired professor of pathology.

Dr. Thomson's completion of residency and fellowship training in nephrology with Dr. Eli Friedman at State University of New York's Downstate Medical Center-Kings County Hospital in Brooklyn coincided with stunning developments in the treatment of end-stage kidney failure. The development of safe, repeated access to patients' circulating blood made it possible for patients with terminal renal

failure to receive dialysis to maintain reasonable health for months or years. Dr. Thomson spent time with Dr. Belding Scribner and his group at the University of Washington in Seattle to observe the new techniques and the beginnings of maintenance dialysis treatment. He returned to Brooklyn and with Dr. Friedman set up and directed what became one of the nation's earliest and largest dialysis programs.

"It was like suddenly having a treatment for terminal cancer," he remembers. He was greatly stirred by "the drama of seeing patients otherwise doomed to die with the diagnosis of chronic renal failure pull through, thanks to the intervention. We had the ability to resurrect those patients and give them life for months or years. We ultimately set up a huge ward, with 14 patients hooked up to a single dialysate-producing pump, being treated at the same time. We were also able to help other regional centers get started as quickly as possible." The latter was particularly important as Dr. Thomson experienced the realities of not having enough dialysis facilities and the anguish of rationing in medicine.

While at Kings County, Dr. Thomson witnessed glaring disparities in health care because of the lack of resources at public hospitals compared to well-funded private institutions. He later joined forces with a colleague, Dr. Seymour Glick, to co-found the Society of Urban Physicians, an organization of several hundred public hospital senior physicians who advocated for improved conditions in New York's public hospitals. The group gathered information, held press conferences, and issued reports. They also organized a national conference on public general hospitals.

In 1968, the city government instructed Columbia University to move its illustrious First Medical Division, headed by Dr. Charles Ragan, from Bellevue to Harlem Hospital as part of an overall plan to improve staffing and professional services through funded affiliation contracts that made universities and their medical schools responsible for professional services in the public hospitals. Two years later, Dr. Ragan recruited Dr. Thomson to join the Columbia faculty and set up a kidney unit in Harlem, where renal failure was widespread due in large part to the unchecked incidence of high blood pressure and diabetes. But no sooner did Dr. Thomson get things going, battling with city and state authorities to give him the four artificial kidneys and other resources he had been promised, when, in 1972, Dr. Ragan was appointed chair of the Department of Medicine at Columbia. He urged Dr. Thomson to take on direction of the Department of Medicine at Harlem. "I said I would do it for a couple of years to get things established. Fifteen years later..."

At the Medical Helm in Harlem

From 1971 to 1985, with scarce resources and against almost insurmountable community health status chal-

lenges, including poverty and the now clearly recognized effects of other social determinants of health, says Dr. Thomson, he developed a full-service Department of Medicine with 40 full-time faculty members, 120 residents and fellows, divisions in all subspecialties, fully accredited residency and fellowship training, teaching of Columbia students, and research programs.

Dr. Thomson noted: "Harlem Hospital suffered the same budgetary and resource problems that affected many publicly funded hospitals across the country. Advocacy and often activism by hospital health professionals and the informed, determined community were necessary to deal with repeated attempts to reduce funding and deny requests for needed services, equipment, and resources. Because of the affiliation contract, Columbia University became an advocate for Harlem Hospital at the highest levels, advocating for proper support of the hospital and its health professionals in keeping with the stipulated responsibilities of the contract."

Dr. Thomson lauds the members of his house staff. "Absolutely committed to caring for their patients, the Harlem house staff were as good as any you could find anywhere," he recalls, "often thinking and acting out of

"For a whole generation of black physicians who trained at Harlem Hospital, he exemplified what it meant to be a physician dedicated to community."

the box. They brought the sense of justice and activism of the times with them to Harlem. They were embraced by the community's activism on behalf of the hospital."

Former medical resident and immediate past NYC Commissioner of Health, Mary Bassett'79, still remembers the dire conditions and the director's leadership style: "We lacked supplies, we had very sick patients, the operating room would be shut down because they didn't have air conditioning, and I remember the night they ran out of respirators. But in spite of those daunting conditions, Dr. Thomson inspired us all by his example, generating standards, demanding quality of care, and commanding respect. For a whole generation of black physicians who trained at Harlem Hospital," she added, "he exemplified what it meant to be a physician dedicated to community. He was one of that handful of people who generate standards around them."

Another former resident, Brenda Aiken'81, assistant clinical professor of medicine at VP&S, director of medical services at Columbia's student health service, and a past president of the P&S Alumni Association, recalls: "He

was affectionately called the ‘JET,’ because of his initials, G-E-T, and because of his way of demanding excellence and asking probing detailed, knowledge-based questions at morning report or chief of service rounds. You had better know the reason for high anion gap metabolic acidosis or have TB in your differential diagnosis of pneumonia, as well as consider all the psychosocial and economic determinants of health. Harlem is where we went to learn urban medicine, to become advocates for communities.”

Dr. Thomson called public attention to the high death rates and poor health indices in central Harlem. Federal funding was provided to establish the Harlem primary care network, still functioning today as the Harlem Renaissance Network.

Dr. Thomson felt strongly that programs to prevent disease should also be instituted. He wrote a detailed proposal asking that a division of preventive medicine be added to the Department of Medicine.

“But when I talked about prevention, people thought I was crazy,” he says. And when he pitched the hospital administration to add a division of prevention to the Department of Medicine, he was told, “Dr. Thomson, we don’t get paid for preventing illness, we are reimbursed for treating patients.”

The indefatigable Dr. Thomson took matters in his own hands. He organized, among other initiatives, a program that trained nurses to screen thousands of people in Harlem for high blood pressure and refer those found to have hypertension to a special Harlem Hospital clinic where they were treated by the specially trained and supervised nurses.

Later, as senior associate dean at Columbia, he teamed up with the late Allan G. Rosenfield’59, former dean of

the Mailman School of Public Health at Columbia, to create at Harlem Hospital the Harlem Center for Health Promotion and Disease Prevention funded by the CDC. Dr. Bassett, who went on to become the New York City health commissioner, served for a time as medical director.

The Call to Columbia-Presbyterian

In 1985, Tom Morris’58, then newly appointed president of Presbyterian Hospital, recruited Dr. Thomson to fill the position of chief medical officer and executive vice president for professional affairs to oversee the management of all professional staff and programs.

In addition, on behalf of Presbyterian Hospital, Dr. Thomson established and was president of the Washington Heights-Inwood Ambulatory Care Network (now the ACNC Ambulatory Care Network), a system of primary care centers, including medicine, pediatrics, and OB/GYN services, and some with dental units, all linked to Presbyterian Hospital. He also championed and established a special arrangement between the hospital and qualified community doctors, granting them a limited attending status that allowed them to confer with Columbia faculty, refer patients for admission, and receive coordinated information when their patients were discharged.

Also, on behalf of Presbyterian Hospital and at the request of the state, Dr. Thomson wrote and negotiated an affiliation contract between Helen Hayes Hospital, a Columbia affiliate that specializes in physical rehabilitation, and Presbyterian Hospital, adding the involvement of several additional patient care services to the rehabilitation facility.

Senior Associate Dean: Championing the Recruitment of Minority Medical Students at VP&S and other Efforts

In 1991 Dr. Thomson was appointed senior associate dean at VP&S, a position he held with distinction until 2002. Foremost among his missions were the recruitment, support, and advisement of minority medical students who were underrepresented in medicine. He became personally involved with the admissions process, helping to screen and interview applicants and working with the Admissions Committee. He also advised admitted students, sought scholarship support, and established special programs that provided experiences and advisement for college and high school students. He visited and spoke at numerous colleges and universities, often serving as an adviser to individual students and organizations. He regularly worked with the Association of American Medical Colleges to develop programs to improve the pipeline of qualified students to medical schools.

In addition, as senior associate dean, Dr. Thomson negotiated several contracts with hospitals in the tri-state

Brenda Aiken’81
with Dr. Thomson,
the man
nicknamed “JET”



area, bringing them into a network of institutions cooperating with the then separate Presbyterian Hospital and New York Hospital.

National Policy Concerns and Leadership

During the 1990s, Dr. Thomson and others became particularly concerned about disparities in health status and health care related specifically to race. “For physicians, the quest for access, equality, and medical justice,” he wrote in an editorial in the *Annals of Internal Medicine* in 1997, “is in keeping with our professional pledges and responsibilities. Physicians should be the informed, committed, and insistent conscience of such standards.”

Dr. Thomson was elected to the Institute of Medicine, now the National Academy of Medicine, in 1996. He was chair of an academy committee that reviewed and issued a 2013 report, “Examining the Health Disparities Research Plan of the National Institutes of Health: Unfinished Business.”

He co-chaired a panel convened by the Physicians for Human Rights that reported in 2003 on “The Right to Equal Treatment: An Action Plan to End Racial and Ethnic Disparities in Clinical Diagnosis and Treatment in the United States.”

Dr. Thomson’s influence on health care delivery and education has included key leadership positions in professional organizations. He is co-founder and former president of the New York Society of Nephrology and founder and past president of the Association of Academic Minority Physicians. In 1990-1991, he was chair of the American Board of Internal Medicine, the certifying board for the largest specialty in American medicine, after serving for several years as a member of the board producing certifying examinations and policies for internists and internal medicine subspecialties, as well as dealing with salient policy issues including recertification and the introduction of the concept of professionalism in medicine.

He served as president of the American College of Physicians from 1995 to 1996. With an estimated present membership of some 154,000, the national organization of internists is the largest medical specialty organization and second-largest physician organization in the United States. Its mission is to enhance the quality and effectiveness of health care by promoting excellence and professionalism in the practice of medicine. The organization deals with policy issues affecting the delivery of health care, including issues of access to care, universal health insurance coverage, Medicare and Medicaid policy, and, currently, the Affordable Care Act, and provides guidelines for treatment and numerous policy statements.

From 2001 to 2013, Dr. Thomson chaired the board of the Institute on Medicine as a Profession headed by Colum-



bia’s David Rothman. Over the years, IMAP dealt with conflicts of interest and a variety of other issues pertaining to professionalism and inequities in the delivery of health care.

Another pressing ethical concern of the medical profession arose in the wake of the 9/11 terror attacks and Washington’s suspension of the rules of the Geneva Convention in the treatment of detainees in the U.S. war on terror. Dr. Thomson co-chaired an IMAP-Open Society Foundation committee that reviewed physician involvement in the interrogation and torture of U.S. detainees. The committee’s report, “Ethics Abandoned: Medical Professionalism and Detainee Abuse in the War on Terror,” was published in 2014. He also served as a member of the Constitution Project Task Force on Detainee Abuse that published an extensive report in 2013.

Clinician and Teacher

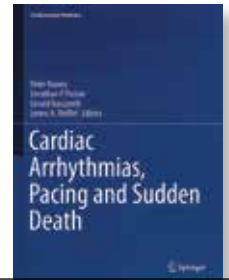
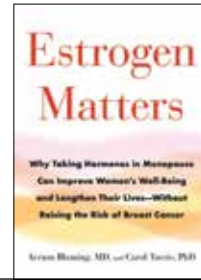
Over the years at Harlem Hospital, he presided over daily morning report, had weekly sessions with third-year VP&S students, and held weekly departmental single case reviews and mortality conferences. At the medical center, he rounded on the medical service even while attending to administrative duties, a regular practice he continued several times a year after retirement.

In a profile of Dr. Thomson published in 1999, Deborah Gurner’96 called him a consistent source of guidance and inspiration. “He is a consummate clinician, with the most undeniable manifest diagnostic mastery and a tremendous bedside manner. He’s got a natural charisma.”

Described as an exacting clinician and devoted teacher, he in 2002 was awarded a Columbia Presidential Teaching Award that recognized his teaching. Dr. Thomson himself sums up his career this way: “It all starts with the foundations of being an effective clinician and teacher.”

Editor’s Note: After 31 years as a writer in the alumni office, Peter Wortsman has retired. This is his last profile for Columbia Medicine magazine. Columbia University Press is compiling several of his profiles for an upcoming book.

Columbia honored Gerald E. Thomson in 2015 with the inaugural Kenneth A. Forde Diversity Alliance Lifetime Achievement Award. He is pictured with Dr. Forde and other honorees, Linda Aponte-Patel, who received the Faculty Diversity Award; Ashley White-Stern ’18, who received the Medical Student Diversity Award; and Iheanacho Obinnaya Emeruwa ’14, who received the Resident Diversity Award.



alumni *in print*

By Bonita Eaton Enochs, Editor

Cuentos Cortos/Short Stories

Oliver E. Cobb '56

Third Place Press, 2017

When Dr. Cobb retired in 2000 as a urologist at age 69, he decided to learn Spanish. He took classes in Spanish at a local Seattle community college, had intermittent tutoring, and lived for brief periods with Spanish-speaking family members. Along the way, he accumulated stories he shared with tutors. The 73 stories in the resulting collection were first written in Spanish then translated. The two versions are printed in the book, with English on one side and Spanish on the other. Some of the stories are about his family and growing up, while others are fictional “products of my imagination, until now sidelined by the intellectual and physical demands of a medical life.”

Attachment Disability, Volume 1: The Hidden Cause of Adolescent Dysfunction and Lifelong Underperformance (Including a Plea for Psychiatric Diagnostic Reform)

John Curran '61

Bidwell Learning Institute, 2017

In his new book, Dr. Curran demonstrates that emotional disability is always trauma-related. He draws on professional literature and dozens of case studies to define three types of attachment disability: avoidant, entangled, and acting-out. Dr. Curran

describes his experience as a medical student and psychiatry resident at Columbia and suggests a psychiatric management style that can benefit not only doctors but also social workers, parents, teachers, and probation officers.

Estrogen Matters: Why Taking Hormones in Menopause Can Improve Women's Well-Being and Lengthen Their Lives - Without Raising the Risk of Breast Cancer

Avrum Bluming '65

Little, Brown Spark, 2018

Sixteen years after hormone replacement therapy was officially deemed a carcinogen by the Women's Health Initiative, Dr. Bluming and social psychologist Carol Travis track its strange history, which shifted from a miracle to abandonment. The book presents the case for the resurrection of hormone replacement therapy, while also providing a fuller picture of the science that supports it in an effort to provide an empowering path to wellness for women.

Cardiovascular Medicine: Cardiac Arrhythmias, Pacing and Sudden Death

James A. Reiffel '69

Springer, 2018

This new book co-edited by Dr. Reiffel provides up-to-date and comprehensive

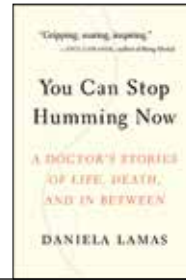
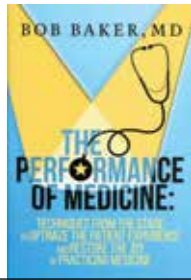
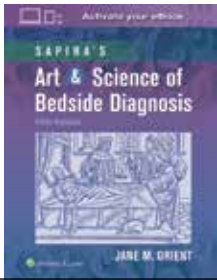
guidance on the evaluation, diagnosis, and medical and surgical treatment of cardiac arrhythmias, covering every aspect, from cardiac signs and symptoms through imaging and the genetic basis for disease to surgery, interventions, treatment, and preventive cardiology. Presented with consistent chapter organization, clear design, and engaging text that includes user-friendly features such as tables, lists, and treatment boxes, the book aims to aid trainees, practicing cardiologists, and any physician who manages cardiac patients.

Sapira's Art & Science of Bedside Diagnosis, 5th Edition

Jane M. Orient '74

Wolters Kluwer, 2018

First published in 1990, the book serves as a useful guide for learning and reinforcing effective bedside diagnosis techniques by discussing the patient interview and the physical examination in an engaging, storytelling style. The book aims to help doctors gain the most reliable information from patients and lead to accurate differential diagnoses and effective diagnostic strategies, detailing effective approaches to various types of patients including those who are vague, forgetful, or confused. The fifth edition contains new material on endocrinology, neurologic diagnoses and brain injury, intracranial hypertension, and more.



The Performance of Medicine: Techniques from the Stage to Optimize the Patient Experience and Restore the Joy of Practicing Medicine
Bob Baker '77

Best Job Productions, 2018

Drawing on his performance skills as a professional magician and believing that patient experience affects patient outcomes, Dr. Baker offers in his new book practical strategies and techniques that physicians and other practitioners can implement easily and immediately to give patients the best possible experience with no additional expenditure of time. Through his book, Dr. Baker brings forward his passion to help doctors rediscover the joy of practicing medicine while optimizing the patient experience, advocating that the magic of medicine begins with the doctor-patient connection.

Communication Rx: Transforming Healthcare Through Relationship-Centered Communication
Calvin Chou '92 PhD/'94 MD
McGraw-Hill Education, 2018

Advocating that the key to better health care outcomes is communication, Dr. Chou's new book details the proven and effective methodology by the Academy of Communication in Healthcare, which

places communication skills between patients and practitioners, as well as among health care team members, at the center of care. The book provides specific guidance to enhance fundamental skills that apply to every conversation in health care, including challenging conversations with patients, conversations among members of health care teams, and organizational conversations to enhance patient experiences of care, ultimately leading to more accurate diagnoses and improved patient outcomes.

You Can Stop Humming Now: A Doctor's Stories of Life, Death, and In Between
Daniela Lamas '08
Little, Brown and Company, 2018

What is life like for patients whose lives are extended by days, months, or years as a result of modern medical treatments and technologies? In her new book, Dr. Lamas explores the complex answers to this question through intimate accounts of patients and their families in a riveting and compassionate look at the choices of realities that many individuals may one day face. "Lamas captures the rhythm and mayhem of modern medicine. Warmth and humanity radiate from every page. The patients in this book have something important to say, and so does the author. We should all be listening," said a review in USA Today.

The Cynic in Extremis
Jacob M. Appel '09
Abel Muse Press, 2018

In this book of poetry, Dr. Appel has published new poems along with poems that originally appeared in several poetry and literary journals. As described in the book's foreword written by Brigit Young, "the inevitability of mortality and the capriciousness of its unfolding linger beneath clever, wry, and ultimately mournful lines" in Dr. Appel's poems. The 58 poems in the collection include "Summer Camp Socials," "Murder-Suicide," "First Crush," "Flying with Clarity," "Shrinking with Doubt," "Blackberry Winter," and the title poem, "The Cynic in Extremis." With life's end so unpredictable and defined by fickle-hearted fate, says Ms. Young, "to waste any moment amounts to a sin."

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

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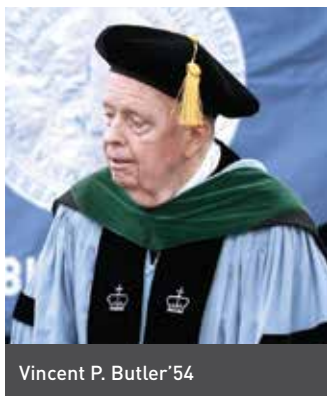
Please include an email address for the editor's use only.

Send inquiries about books to columbiamedicine@columbia.edu

FACULTY

Jane Asch, MD, assistant clinical professor of psychiatry, died April 23, 2018.

Vincent P. Butler, MD, professor emeritus of medicine, died June 7, 2018. He was a 1954 graduate of VP&S.



Vincent P. Butler '54

Philip E. Duffy, MD, professor emeritus of neuropathology, died Sept. 21, 2018. He was a 1947 graduate of VP&S.

John B. Price, MD, professor emeritus of surgery, died March 25, 2018.



John B. Price

Miles J. Schwartz, MD, professor emeritus of clinical medicine, died April 13, 2018.

Theodore Stent, MD, retired associate clinical professor of radiology at Harlem Hospital, died April 29, 2018.

ALUMNI 1948

William E. Sherpick died June 14, 2018, shortly before his 93rd birthday. He is survived by his wife of 60 years, Mary, and four daughters. Dr. Sherpick was born in Brooklyn and lived in Scarsdale, New York City, and Hawaii during his medical training. He moved to Farmington, Conn., where he and his wife raised their girls and dogs. He enjoyed spending time shoreside on Shelter Island and later in Wareham, Mass. He was an accomplished woodworker, crafting furniture for family and friends. After retirement, he and Mary moved to Needham, Mass., to be closer to their children.

1952

James Archibald "Arch" Jacob Jr. died Feb. 9, 2017, of carcinoid syndrome in his native West Virginia. Shortly after graduating from VP&S he was drafted into the Navy, which took him to places around the world. Upon discharge he settled in Wheeling, W.Va., where he raised four children. He also joined the board of a manufacturing company that had been associated with his family for generations. Dr. Jacob was medical director of the Wheeling Steel Company before going into private practice. He became a captain in the Army Reserves and did considerable traveling. His other passions were reading, gardening, opera, classical music, birding, and crossword puzzles. He is survived by his wife, Doretta, four children, and six grandchildren.

1953

Garrison "Gary" Rapmund of Bethesda, Md., died April 22, 2018, at age 90. He trained in pediatrics at Babies Hospital before joining the Army, where he rose to the rank of major general. He was an assistant

surgeon general in the field of research & development and a scientific adviser to the NIH, the FAA, and the Department of Energy. His honors include the Legion of Merit, the Meritorious Service Medal, the Army Commendation Medal, and a named medal from the Infectious Diseases Society for his work on rickettsial diseases. He is survived by a son, a daughter, and two grandchildren.

1954

Peyton Hoge Mead of Farmington, Conn., died May 3, 2018, of complications from Alzheimer's disease/vascular dementia. At his side during his final days were his wife of 25 years, Mimi, and his four children. A native of Connecticut, Dr. Mead trained in surgery, became a Fellow of the American College of Surgeons, and practiced at Hartford Hospital. In 1964 he served on the hospital ship HOPE in Guinea, West Africa. He left private practice to work as an occupational physician at an aircraft company. His passions were flying and parachute jumping. Dr. Mead participated in the 1963 march for civil rights on Washington at which Dr. Martin Luther King made his famous "I have a dream" speech, and he volunteered for Meals on Wheels.

1955

Daniel Starr Pettee died May 24, 2018, at age 93 at his home in Broomfield, Colo., where he lived with his daughter and her family. Dr. Pettee was elected to AOA, trained in neurology at Rochester, and was an expert on multiple sclerosis. An avid singer, he joined the P&S Bards as well as nationally recognized choral groups. During World War II he was wounded in Bitche, France, and received the Purple Heart. He recently completed his autobiography, "One Son of Bitche."

1956

Donald M. Gleason, a urologist, died March 22, 2018. After serving his country in the Air Force he finished his residency in New York City, then moved to Tucson where he practiced urology for more than 30 years. He is survived by his wife, Peggy, four children, and nine grandchildren.

1957

William C. Rhangos died May 31, 2018. A native of Massachusetts, Dr. Rhangos graduated from Yale before entering VP&S. He trained in surgery at Roosevelt before going into the Army. Upon discharge he moved to Duke University where he completed training in orthopedic surgery. He moved to Savannah, Ga., where he became chief of the Crippled Children's Clinic and remained for many years.

Sterling P. Tignor

died April 10, 2018. As an undergraduate at Yale, he was voted as the "student most likely to succeed." After medical school, he completed a surgical residency at Boston City Hospital then served in the U.S. Army Surgical Corps until his discharge in 1964. Following a fellowship at Memorial Hospital he opened a practice in Kokomo, Ind., and served on the faculty of Indiana University's medical school. He also served a term as president of the Indiana College of Surgeons. Among his hobbies were classical music, photography, woodwork, and travel. He was an avid motorcyclist and owned several "bikes." His wife died in 2017. He is survived by two daughters, a son, and six grandchildren.

1958

Jules White, 84, died May 24, 2018, in Stamford, Conn. His professional life was distinguished by being board-certified in three fields:

T. Berry Brazelton

T. Berry Brazelton, a December 1943 graduate, pediatrician, and child development expert who revealed that newborns communicate from the start and insisted on the importance of early mother-infant bonding, died March 13, 2018, at age 99.

From an early age Dr. Brazelton had an uncanny ability to understand and communicate with infants, a skill he first honed calming his young cousins in Waco, Texas. Asked in an interview for an alumni profile in this magazine if a pediatrician needed to be in touch with the child in himself, Dr. Brazelton quipped: “A friend of mine says I’m the tallest 2-year-old he’s ever known!”

His lifelong research in early child development helped doctors and parents realize that individuality is there right from the start and that if we listen carefully, newborns can tell us what they need and want. “That’s something that I’ve spent my whole life aware of,” he said in the interview. “I can look at a child, a newborn, and tell you just what he is trying to say without words.”



The Neonatal Behavioral Assessment Scale he developed in 1973 (known as “the Brazelton”) is now used worldwide as an evaluation tool to assess the physical and neurological responses of newborns as well as their emotional well-being. The author or editor of some 40 books and a regular child-rearing column in *Family*

Circle magazine, Dr. Brazelton also applied his knowledge, skills, and child savvy as host of an Emmy Award-winning TV program, “What Every Baby Knows,” that ran for 12 years. Dr. Brazelton began a private pediatric practice in Cambridge, Mass., in 1950, continuing to see and consult with patients and their parents for many years.



T. Berry Brazelton '43D

He later joined the pediatrics faculty at Harvard Medical School. In 1972 he helped found the Child Development Unit, a pediatric training and research center at Boston Children’s Hospital. The Brazelton Center for Infants and Parents, another unit he founded at Harvard Medical School, trains health care professionals worldwide in the effective use of his Neonatal Behavioral Assessment Scale. Harvard established a named chairmanship in pediatrics in his honor in 1995. He also received the World of Children Award in 2002, a Presidential Citizen’s Medal personally awarded by President Barack Obama in 2013, and many other honors.

Preceded in death by his wife, Christina, he is survived by three daughters, a son, and five grandchildren.

—Peter Wortsman

surgery, thoracic surgery, and radiology. After military service in Vietnam, for which he received a Bronze Star, he practiced cardiothoracic surgery in Dayton, Ohio, and radiology at New Milford Hospital. His hobbies included classical music, military history, languages, long distance swimming, alpine skiing, tennis, and long walks. He is survived by two daughters and two grandsons.

1959

Warner Slack died of lung disease June 23, 2018. He was best known for the computer applica-

tions he used to maintain patient records. As early as 1965 he envisioned a computer-based medical history. In the *New England Journal of Medicine*, Dr. Slack showed that “patients enjoyed interacting with the computer and that the resulting histories were more detailed and accurate than those resulting from physician-patient interviews.” Dr. Slack served as co-chief of the Division of Clinical Computing at Beth Israel Deaconess Medical Center, where he oversaw some of the earliest and most effective hospital-wide clinical computing systems.

1960

Saul Moroff died May 14, 2018. Dr. Moroff did his postgraduate training at Einstein and Jacobi hospitals and was chief resident and director of the medical service at Einstein Hospital. His subspecialty was hematology. He was made clinical professor emeritus upon his retirement, after which he and his wife, Libby, took courses, visited museums, attended concerts, and completed cross-country drives. He is survived by his daughters and grandchildren.

1961

Joel Kovel, a former Freudian psychiatrist who evolved into an apostle of what he called ecosocialism, a so-called green-and-red agenda against the environmental evils of globalization in favor of the nonviolent eradication of capitalism, died April 30, 2018, in Manhattan. He was 81. He trained at Downstate Psychiatric Institute and directed residency training at Einstein. A book he authored, “White Racism,” was nominated for a National Book Award. His wife, Dee Dee Hallek, and two daughters survive him.

1962

Howard A. Fox, longtime chair of pediatrics at Monmouth Medical Center, died May 15, 2017. His field of expertise was neonatology. He trained in pediatrics at Babies Hospital and served in the U.S. Public Health Service, which took him to the CDC. He completed his training at Yale, after which he assumed the position of director of neonatology at Mount Sinai in New York. He held the same position for 11 years at the University of Kansas, where he developed a program that facilitates transport of newborns. Upon retiring, Dr. Fox earned a degree in art history from Rutgers and spent 10 years as a volunteer at the Metropolitan Museum of Art. He is survived by his wife, Barbara, two daughters, and two grandchildren.

Herman Frankel died July 11, 2018, at the age of 80. He trained in pediatrics at Montefiore and Cornell, eventually becoming director of the Portland Health Institute for Building Caring Relationships. He also held faculty appointments at Pacific University of Professional Psychology and Portland Community College. In 1984 he received the Secretary of Health and Human Services Award of Excellence and the Children's Rights Council National Award of Excellence. He is survived by his wife, Ruth, and by two daughters, one of whom is a pediatrician.

1964

William Garrick Friend died April 7, 2018, at age 82. He spent two years in the Army and later developed the world's first synchronous pacemaker. A native of Seattle, he returned there as the first board-certified colorectal surgeon in Washing-

ton state. He was an attending at Swedish Hospital and a clinical faculty member in surgery at the University of Washington. Considered a pioneer in the fields of colonoscopy, outpatient surgery, and laser surgery, he authored numerous articles and gave many lectures, nationally as well as locally. He also conducted clinical trials for the FDA and was president of a venture capital firm in Seattle. His hobbies were gardening, landscaping, and boating. He is survived by two daughters, five grandchildren, and a sister.

David R. Nank died April 22, 2018. The native of Washington state completed an internship in general surgery at the University of Washington in Seattle. After serving two years in the U.S. Air Force, he returned to Seattle to train in orthopedic surgery. He practiced in Seattle for more than 30 years. His hobbies were scuba diving and underwater photography. He is survived by two children, five grandchildren, and a sister.

1965

Daivda Coady, a pediatrician who became an international health activist then a substance abuse specialist who devoted her life to the care of society's most vulnerable, including refugees, the homeless, and the incarcerated, died May 3, 2018, of ovarian cancer. Inspired by the likes of Albert Schweitzer and Mother Teresa, Dr. Coady traveled the world, often at considerable personal risk, to aid populations in need. One stop was Biafra, a break-away region of Nigeria, where she appealed for American aid that helped save imperiled children from starvation. Serving for a time as acting medical director of the Peace Corps and later working in

conjunction with various NGOs, including Irish Ghost Fathers and Concern, she became an expert medical tactician tending to the pressing needs of displaced people. Her field of operations shifted among Africa, Asia, and Central America. Along the way, she worked with Mother Teresa in the slums of Calcutta and United Farm Workers organizer Cesar Chavez in the vineyards



Davida Coady '65

of California, both of whom she revered. She also garnered lifelong friends, admirers, and supporters of note, including the late Sen. Edward Kennedy, actor Martin Sheen, and the late Keith Brodie '65, former president of Duke University. Back in California between missions she helped to kick-start the fledgling Venice Family Clinic, a free clinic serving low-income families, at which she officiated for many years as the head of the pediatric service. Returning home from her extensive travels in 1994, she recognized drugs and alcohol as key aggravating factors in child neglect and abuse and decided to switch gears from pediatrics to substance abuse, to promote recovery among addicts on the street and among the incarcerated in California prisons. In 1997 she founded Options Recovery Services to assist substance and alcohol abusers, many homeless

and/or in and out of jail, to engage in effective recovery. Working in tandem with her husband, Thomas P. Gorham, who survives her, she answered the call of prisoners serving life sentences at San Quentin and Solano State prisons in California, launching and running the Offender Mentor Certification Program to help incarcerated men and women tackle the problems of addiction and, in turn, help others to do the same. A life-affirming purpose for those still serving time, it has proved a precious and marketable skill that those later released on parole have applied to build a clean life on the outside. In the words of James Ward, a member of the first graduating class, who at age 66 called himself the "elder statesman" of that first crop of peer mentors: "I am simply a raw human being trying to do as best as I can. It takes a special kind of person to work with someone like me, to look me in the eye and tell me there's still something worth saving, and then go ahead and teach me how."

1977

Ira S. Goldman died June 12, 2018. He was a gastroenterologist and gastroscopist who was in a group practice in Long Island, N.Y., and he was associate professor of clinical medicine at North Shore University. Over the years he held several leadership positions in the American Gastroenterological Association. He served on the faculty of New York University, Cornell University, Hofstra University, and UCSF. Dr. Goldman is survived by two sons and one granddaughter.

HOUSE STAFF

Robert H. Thompson, who completed a pediatrics residency at Columbia, died Aug. 26, 2017.



VAGELOS COLLEGE OF
PHYSICIANS AND SURGEONS

For William Schneider, “Doing was Important”

William J. Schneider, MD, was a big believer in education and particularly passionate about his time in medical school. His wife, Joan Schneider, explains about her late husband: “He loved being at Columbia. It was the most memorable part of his career. The fact that he was there (at VP&S) for medical school was thrilling. He loved to learn, loved his professors and city life, and he made a lot of good friends.”

Dr. Schneider earned his MD and MPH from Columbia University and through his academic appointments at several medical schools instructed and mentored countless medical students. He went on to serve as Medical Director and Managing Director for Healthcare Services at JP Morgan Chase from which he retired in 2001. He authored several books and articles and immediately after 9/11 served as a volunteer, examining police officers and firefighters.

Dr. Schneider’s love and commitment for VP&S continued long after he graduated. In 2009, after learning about the Legacy Challenge

supporting scholarships, he immediately set up a bequest intention.

Years later when given the opportunity to carry on her husband’s legacy, Mrs. Schneider made a second bequest intention to VP&S to support the endowed scholarship program, noting that her husband would have been thrilled to know that students with need now will have an opportunity to graduate debt free.

“I know this was important to him so it gives me great pleasure to help people who need help and who will go on to help other people but might not have been able to do so without this monetary support.” She further noted: “He just cared for other people. He was an amazing man. He was just low key. The recognition was not important. The doing was important.”



William J. Schneider, MD
and Joan Schneider

**TO LEARN HOW YOU CAN CREATE OPPORTUNITY FOR
TOMORROW’S DOCTORS WITH A PLANNED GIFT, PLEASE CONTACT:**

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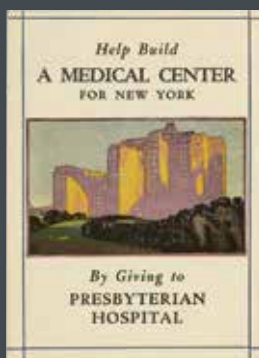
A Medical Center For—and By—the Community

The history of what is now the Columbia University Irving Medical Center frequently focuses on the generosity of the big organizers and donors, whether of land or money. But the medical center might not have been built were it not for the grassroots efforts of medical center neighbors and other New Yorkers.

Four years before it opened in 1928, the medical center faced a funding gap of \$4.5 million. Promising to treat the poor of New York without regard

to race, creed, or color, the fundraising committee turned to the community for help.

Information pamphlets were given to potential donors in



The Medical Center in New York

John Amundson's House
17 East 42nd Street
New York City

IMAGES COURTESY ARCHIVES & SPECIAL COLLECTIONS

New York and the vicinity, describing the ambitious \$10 million medical center as “The Fortress in the Heights – built, equipped, and designed to wage war against disease in a modern way.” Some pamphlets approached the public-spirited citizens in a more direct manner: “In a way, this is your own medical center – to be built in your neighborhood, for your service, with your cooperation.”

In just a year, \$3.75 million was raised from 20,000 donors. The gifts received during the campaign ranged in amounts from 25 cents to \$500,000. Many of the donations were a result of team fundraising. For example, 15,000 postal employees made a gift

of \$60,000 in memory of Edward M. Morgan, a former New York postmaster. The alumni and students of the Presbyterian School of Nursing—now the Columbia University School of Nursing—raised nearly \$550,000 from more than 1,200 gifts, and a committee of Washington Heights residents raised more than \$150,000 through individual donations.

The 1928 opening of what was known for many of its past 90 years as Columbia-Presbyterian Medical Center is inspiring not only because of the medical center’s innovations but also because of the joint efforts and generosity of the community it would call home.