P&S 246 Years Strong

FALL 2013

Columbia Medicine

Columbia University College of Physicians & Surgeons

Fighting Back

Scientists work to build a new defense against malaria

Rite of Passage Turns 20

The White Coat Ceremony, launched in 1993 at P&S, celebrates 20 years of welcoming students into the world of medicine

DSM-5

Faculty, alumni help write psychiatry's latest bible

MANHATTAN TIMES / MIKE FITELSON

Dear Readers,

Every day our clinicians and researchers advance health care, through both interactions with individual patients and groundbreaking research discoveries that have an impact on populations. Those achievements often make news, and you may have seen headlines recently about work at Columbia that is likely to have a profound impact on patients everywhere:

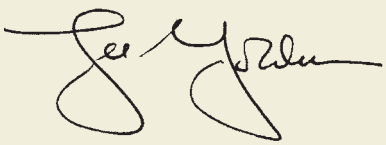
- findings that show a protein deficiency could be a significant contributor to age-related—and reversible—memory loss
- identification of three genes that together can accurately predict the outcome of seemingly low-risk prostate tumors, a finding that could lead to a genetic test to assess the aggressiveness of this common cancer
- promising laboratory and mouse studies in which researchers were able to grow human hair for the first time
- the transformation of human stem cells into functional lung and airway cells, which could lead someday to lung transplants that use a patient's own skin cells to generate functional lung tissue

Few of these research findings will be at a patient's disposal tomorrow, but they illustrate how basic research—stem cell and genetic medicine in particular—provides the building blocks for improved patient care.

Another example of our application of the best science has to offer is this issue's cover story, which profiles David Fidock's journey toward eradicating malaria worldwide. David, who was recruited in 2007 from Albert Einstein College of Medicine, has built an impressive career that targets malaria drug resistance, which is responsible for the continuing death toll throughout much of our world. The passion he and his team show in their work is another remarkable example of the power of basic research.

I invite you to keep up with all of our research findings and clinical advances in our online CUMC Newsroom—www.cumc.columbia.edu/newsroom—where you will find our reports of peer-reviewed research and headlines and broadcast coverage of our research by news media outlets from around the world. It is an impressive reminder of the impact of medical research and patient care that goes on here every day.

With best wishes,



Lee Goldman, MD, Dean
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departments

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Fall 2013

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Defeating Resistance

By Keely Savoie

A researcher works to understand the mechanisms that drive resistance to new and potential drugs to treat malaria in the hopes of finding ways to outmaneuver those mechanisms.

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Sandra Gold cloaking Patrice Alves'97 in 1993

Celebrating 20 Years of the White Coat Ceremony

By Jen Uscher

Twenty years after the first White Coat Ceremony took place at P&S, graduates involved in that historical ceremony discuss the impact of the rite on their careers.

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Manual Dexterity

By Philip Berroll

The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders, called "the bible of psychiatry," was released in 2013. Several P&S faculty at the New York State Psychiatric Institute contributed to the manual and defend it against critics.

LOG ON: More online at www.columbiamedicinemagazine.org

- In a book excerpt, Professor Emeritus Arthur Bank talks about general medical ward rounds at Presbyterian Hospital over a 35-year period.
- Clifton K. Meador, a medical resident at Presbyterian Hospital under Robert Loeb from 1955-1957, recalls his first night on call as a resident, when he was asked for the first time to pronounce a patient dead.

More online in the CUMC Newsroom at http://newsroom.cumc.columbia.edu/topics/medical-education/

- Summer research projects by members of the Class of 2016
- P&S student Eli Sayegh studies brain cancer with a Howard Hughes fellowship
- Coverage of the August 2013 White Coat Ceremony for the Class of 2017

P&S letters

Autism and Reading

I read with interest Susan Conova's piece, "For Kids with Autism, Learning to Talk Starts with Reading" (Spring 2013 issue), an article which embraces new hope for the treatment of autism (now widened to "autism spectrum disorders"), as exemplified by the studies of Dr. Marion Blank.

Readers might be interested to go back to 1961 at Cooperstown's Mary Imogene Bassett Hospital, where a new approach to treatment of autism centered around the studies of Associate Pediatrician Mary S. Goodwin, MD (pictured at left), utilizing the "Edison Responsive Environment," a computerized electric typewriter also called the "Talking Typewriter." Dr. Goodwin was one of the pioneers in the use of this technology, and it was the first time it had been installed in a hospital. The equipment was "designed to create an environment where learning to read would be a successful, enjoyable experience for the student by allowing him to explore, discover relationships, progress at his own speed, and receive feedback." (Sanderson, et al., document from American Institutes for Research in the Behavioral Sciences, Palo Alto, Calif., 1972.) Widely publicized in the New York Times and other popular media, Dr. Goodwin's studies were apparently never published, but as described later by Grace Kull, one of Dr. Goodwin's assistants, "A magazine is going to have an article about ERE and a picture of Eddie, one of the autistic kids who came to Bassett Hall to use it. We had that article in the New York Times and everyone is picking it up. NBC or CBS is coming up to see Bassett Hall about doing a TV story." (Mrs. Kull's reflections on the machine are taken from "Dear Bert. Selected Letters 1958-1968," Xoxox Press.)

To fast forward more than half a century, treatment paradigms for autism continue to be a work in process—and, hopefully, progress.

John S. Davis, MD
Clinical Professor Emeritus of Medicine
Bassett Medical Center

Editor's Note: Dr. Davis is working on a book on Bassett's history. He is still accepting comments and vignettes from P&S alumni and faculty who spent time in Cooperstown: davi7js4@hughes.net.

Prostate Cancer

A correction for your cover (Spring 2013 issue): Prostate cancer is not the second leading cause of death in men. All cancers are. Heart disease is No. 1.

Christopher P. Cannon'86
Brigham and Women's Hospital and Harvard Medical School

Editor's Note: Dr. Cannon is right. As the article inside the issue states, prostate cancer is the second leading cause of *cancer death* in men, per the Centers for Disease Control and Prevention (http://www.cdc.gov/cancer/dcpc/data/men.htm). Our cover should have included that qualification.

↘ *send letters to:*

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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.

All others with address changes should contact P&S Communications at 212-305-3900.

News from around the College of Physicians & Surgeons

P&S news

Commencement 2013

Faculty Awards

P&S Distinguished Service Awards were presented to **Andrew L. Wit, PhD,** professor emeritus of pharmacology, and **Linda Lewis, MD,** clinical professor emeritus of neurology.

Charles W. Bohmfalk Awards were presented to **Penelope Boyden, PhD,** professor of pharmacology, for pre-clinical teaching, and **Deborah P. Jones, MD,** assistant professor of medicine at CUMC, for clinical teaching.

The Leonard Tow Humanism in Medicine Award presented by the Arnold P. Gold Foundation was given to **Emily DiMango, MD,** associate professor of medicine at CUMC.

The Dr. Harold and Golden Lamport Research Award in basic sciences was given to **Randy M. Bruno, PhD,** assistant professor of neuroscience. **Christian Schulze, MD, PhD,** the Florence Irving Assistant Professor of Medicine, received the Dr. Harold and Golden Lamport Research Award in clinical sciences.

The Stevens Triennial Prize was awarded to **Carol A. Mason, PhD,** professor of pathology & cell biology, neuroscience, and ophthalmic science.

The Distinguished Teacher Award was given by the Class of 2013 to **Michael Devlin,** MD, professor of psychiatry at CUMC.

Student Awards and Prizes

AOA
(Alpha Omega Alpha, the national honor society for medicine)
Aliza S. Alter, Eric M. Bank, David Bejar, Caitlin B. Clancy, Rebecca D. Eskin, William A. Freed-Pastor, Irmina A. Gawlas, Jordan E. Ireton, Gregory L. Judson, Colleen E. Kays, Jacob M. Kriegel, Joseph P. Lazar, Quinn T.C. Leslie, Thomas H. McConville, Jose R. McFaline Figueroa, Anne C. Onishi, Anuraag S. Parikh, Ashley M. Pritchard, Robert S. Rogers, Lauren D. Rosenberg, Daniel Rubin, Saachi Sachdev, Jamal N. Shillingford, Robert C. Spang III, Justin T. Ward, Forrest N. White, Meredith C. Winter

Dr. Harry S. Altman Award
(outstanding achievement in pediatric ambulatory care)
Camila M. Mateo

Alumni Association Award
(recognition of interest in and devotion to the College of Physicians & Surgeons and its Alumni Association)
Peter Liou

AAN Medical Student Prize for Excellence in Neurology
Jose R. McFaline Figueroa

Virginia P. Apgar Award
(excellence in anesthesiology)
Herng-Yu S. Chang

Michael H. Aranow Memorial Prize
(best exemplifying the caring and humane qualities of the practicing physician)
David Bejar

Herbert J. Bartelstone Award
(exceptional accomplishments in pharmacology)
Aliza S. Alter

Behrens Memorial Prize in Ophthalmology
(outstanding graduate entering ophthalmology)
Matthew D. Nguyen

Edward T. Bello, MD, Listening Award
(to a graduating student who best portrays the art of listening to patients, colleagues, and self in practicing the chosen field of medicine)
Khalid I.A. Hassan

Robert G. Bertsch Prize
(emulating Dr. Bertsch's ideals of the humane surgeon)
Anthony A. Anagnostou

Coakley Memorial Prize
(outstanding achievement in otolaryngology)
Christen J. Lennon

Titus Munson Coan Prize
(best essay in biological sciences)
William Freed-Pastor and Priyamvada Rajasethupathy

Titus M. Coan Prize for Excellence in Research
Basic cell & molecular biology –
David M. Schneider
Translational biology –
Nsikan Akpan

Thomas F. Cock Prize
(excellence in obstetrics & gynecology)
Marianne N. DiNapoli and Anne A. Holland

Rosamond Kane Cummins'52 Award
(graduate entering orthopedics with academic excellence, sensitivity, kindness, devotion to patients, and the fine human qualities that she exemplified)
Katherine A. Rosenwasser

Dean's Award for Excellence in Research/Graduate School of Arts and Sciences at P&S
Christine M. Constantinople

Endocrine Society's Medical Student Achievement Award
Saachi Sachdev

Daniel J. Fink, MD, Memorial Prize
(awarded to the student who best exemplifies Dr. Fink's enthusiasm for the study and practice of medicine)
Elizabeth A. Godbey

Louis Gibofsky Memorial Prize
(for research work in areas of nephrology, renal immunology, renal physiology, or transplant immunology)
Jacob E. Tulipan

Glasgow-Rubin Achievement Award
(presented to women graduating in the top 10 percent of their class)
Aliza S. Alter, Caitlin B. Clancy, Rebecca D. Eskin, Colleen E. Kays, Anne C. Onishi, Ashley M. Pritchard, Saachi Sachdev, Meredith C. Winter

Gold Humanism Honor Society
Aliza S. Alter, Eric M. Bank, Deirdre A. Brazil, Emily C. Broun, Caitlin B. Clancy, Marianne N. DiNapoli, Samantha C. Do, Peter M. Einersen, Hilary M. Grubb, Jonathan D. Hansen, Khalid I.A. Hassan, Colleen E. Kays, Kathryn A. Keegan, Matthew W. Kron, Joseph P. Lazar, Yitian Liu, Camila M. Mateo, Erika J. Mejia, Colin J. Orr, Brooke B. Redmond, Jose R. Regalbuto, Steve A. Situ, Derek B. Smith, Ruth W. Stefanos, Meredith C. Winter

Dr. Charles E. Hamilton Award
(excellence in pulmonary disease)
Robert S. Rogers

Izard Prize for Research in Cardiology
Jessica A. Fleitman

Janeway Prize
(highest achievement and abilities in the graduating class)
Robert S. Rogers

Jerry Jacobs Prize in Pediatrics
(excellence in the differential diagnosis and treatment of disorders in children)
Saira Siddiqui

Albert B. Knapp Scholarship
(awarded at the conclusion of the third year to the medical students with highest scholarship in the first three years)
Robert S. Rogers and Saachi Sachdev

John K. Lattimer Prize in Urology
(outstanding essay in urology)
Scott M. Stevenson

Samuel and Beatrice Leib Memorial Prize in Ophthalmology
(outstanding graduate entering ophthalmology)
Rohini Rao

Donald A.B. Lindberg, MD, (P&S'58) Award for Excellence in Biomedical Informatics
Christian Rose

Barbara Liskin Memorial Award in Psychiatry
(for student who exemplifies empathy, scholarship, and excellence exhibited by Dr. Barbara Liskin)
Blair W. Uniacke

Robert F. Loeb Award
(excellence in clinical medicine)
William Freed-Pastor and Saachi Sachdev

F. Lowenfish Prize in Dermatology
(creative research in dermatology)
Lisa R. Rothman and Nicole A. Weitz

Alfred M. Markowitz Endowment for Scholars
(for student who exemplifies Dr. Markowitz's dedication to patient care, teaching, and scholarship)
Irmina A. Gawlas

Dr. Cecil G. Marquez BALSO Student Award
(outstanding contribution to the Black and Latino Student Organization and the minority community)
Camila M. Mateo

Edith and Denton McKane Memorial Award
(outstanding research in ophthalmology)
Stacy M. Scofield

James M. McKiernan, MD, Prize for Compassionate Care
(student most capable of combining humanism, medical knowledge, and compassion)
Dara D. Holder

Medical Society of the State of New York Community Service Award
John P. Sheehy

Dr. Harold Lee Meirhof Memorial Prize
(excellence in pathology over the four years in medical school)
Derek H. Oakley

Drs. William Nastuk, Beatrice Seegal, and Konrad Hsu Award
(for demonstrated successful laboratory collaboration between student and faculty)
Christen J. Lennon and Jose R. McFaline Figueroa

Marie Nercessian Memorial Award
(for student exhibiting care, unusual concern, and dedication to helping sick people)
Christen J. Lennon

New York Orthopedic Hospital Award
(outstanding performance in research and clinical work)
Matthew D. Riedel

The Daniel Noyes Brown Primary Care Scholar Award
(recognizes the recipients' commitment to primary care and community service)
Rebecca D. Eskin, Hilary M. Grubb, Colleen E. Kays, Ruth W. Stefanos, and Nicole A. Weitz

Office of Student Affairs Outstanding Service to P&S Award
(outstanding contribution to improve the quality of life of his or her peers while at P&S)
Stefan K. Flores and Sue Gu

Outstanding Student in Family Medicine Award
(for demonstrated academic achievement in the area of family medicine and initiative in community health service and an understanding and commitment to the principles of family medicine)
Deirdre A. Brazil and Floria W. Chi

Donald M. Palatucci Prize
(awarded to a student in the fall of his/her fourth year who is in the upper one-third of the class, who exemplifies, through activities in art, music and literature, that living and learning go together, and whose interactions with patients reflect kindness, humor, compassion, candor, and zest for life)
Jon-Michael E. Caldwell and Samantha C. Do

Joseph Garrison Parker Award
(for student exemplifying through activities in art, music, literature, and the public interest the fact that living and learning go together)
Peter Liou and Justin Ward

Excellence in Public Health Award
Camila M. Mateo

Drs. Robert A. Savitt and George H. McCormack Award
(student who exemplifies Dr. George McCormack's medical skill, consideration, understanding, and compassion)
Lauren A. Mautner and Thomas H. McConville

Rebecca A. Schwartz Memorial Prize
(achievement in pediatric cardiology)
Joseph P. Lazar and Jacob M. Kriegel

Helen M. Sciarra Prize in Neurology
(outstanding achievement in neurology)
Daniel B. Rubin

Aura E. Severinghaus Scholar
(superior academic achievement)
David Bejar

Society for Academic Emergency Medicine Award
(excellence in specialty of emergency medicine)
Kimberly A. Stanford

Miriam Berkman Spotnitz Award
(excellence in research of neoplastic diseases)
Peter Liou and Christian C. Rose

Leonard Tow Humanism in Medicine Award
(excellence in science and compassion in patient care)
Camila M. Mateo

William Perry Watson Prize in Pediatrics
(excellence in pediatrics)
Colleen E. Kays

Dr. William Raynor Watson Memorial Award
(excellence in psychiatry throughout four years of medical school)
Kathryn A. Keegan

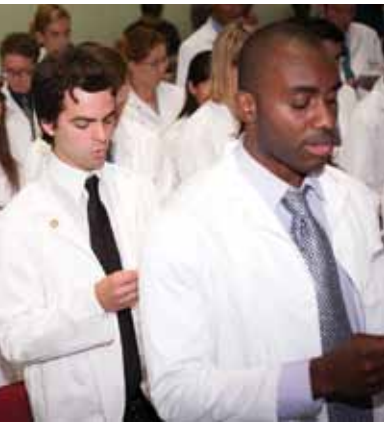
Dr. Allen O. Whipple Memorial Prize
(outstanding performance in surgery)
Anne C. Onishi

Sigmund L. Wilens Prize
(excellence in pathology)
Simon Sung

THE 2013 RESIDENCY MATCH RESULTS CAN BE VIEWED ONLINE:
www.columbiamedicinemagazine.org

P&S Class of 2017 by the Numbers

170 students
- 140 MD students
- 14 MD/PhD students
- 4 PhD-to-MD students
- 2 oral and maxillofacial surgery students pursuing a dual degree
- 10 Columbia-Bassett students



86 females

84 males

Age range: 20-37

36 underrepresented minorities (21%)

7,864 total applications through AMCAS

7,448 secondary applications

6,103 applications for traditional MD program (including 887 from underrepresented minorities)

691 applications for Columbia-Bassett track

547 applications for the MD/PhD program

44 applications for the PhD-to-MD program

1,075 interviews conducted (including 170 underrepresented minorities, 72 for Columbia-Bassett, 112 for MD/PhD, and 15 for PhD-to-MD)

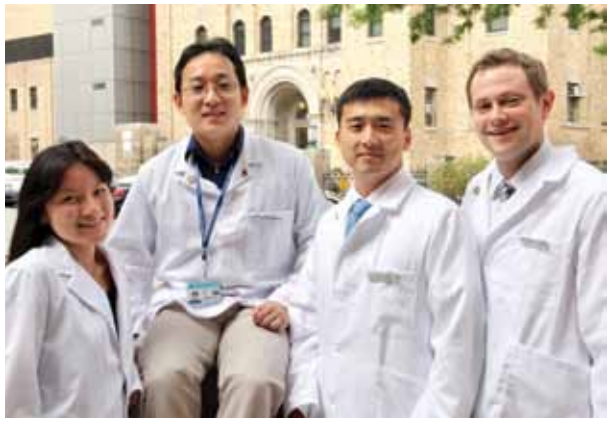
52% yield

72 colleges represented

31 states represented

4 foreign countries (Canada, China, Korea, and Nigeria) represented

1 U.S. commonwealth (Puerto Rico) represented



SUSAN CONOVA

Three-Year PhD-to-MD Program

Among the Class of 2017 are the first students in the new three-year PhD-to-MD program. From left are Gloria Sheng, PhD; Siyan "Stewart" Cao, PhD; Li-Wei Chang, PhD; and Matthew Fleming, PhD. "In just the first few weeks of medical school," Dr. Sheng says, "I've seen so much unexpected integration with my science background. For example, in one of our lectures we encountered a patient who was unable to degrade a specific class of sugars that I had studied in graduate school. I'm glad that I don't have to give up anything that sparks my interest—and may be able to have a career that involves both science and medicine."

News in Brief

Mary D'Alton, MD, chair of the Department of Obstetrics & Gynecology and the Willard C. Rappleye Professor of Obstetrics & Gynecology, was elected to the Institute of Medicine in 2013. Dr. D'Alton also is director of services for the Sloane Hospital for Women of NewYork-Presbyterian Hospital.

Election to the IOM is considered one of the highest honors in the fields of health and medicine. Dr. D'Alton joins more than 40 P&S faculty who are IOM members. The honor recognizes individuals who have demonstrated professional achievement and commitment to service. The

Mary D'Alton, MD

70 new members elected this year raise IOM's total active membership to 1,753.

Dr. D'Alton specializes in high-risk maternal fetal medicine, prenatal diagnostic procedures, and management of maternal health complications. She has implemented a multidisciplinary approach to treating highest-risk pregnancies and to diagnosing and treating fetal complications. She was instrumental in setting up Columbia University Medical Center's Carmen and John Thain Center for Prenatal Pediatrics, a regional coordinated-care center for the treatment of fetal complications, which opened in 2010.

The 2013 Nobel Prize in Physiology or Medicine was awarded to a Columbia adjunct faculty member, James Rothman, PhD, adjunct professor of physiology & cellular biophysics. He shared the award with Randy Schekman of the University of California, Berkeley, and Thomas Sudhof of Stanford University. Dr. Rothman was the Clyde and Helen Wu Professor of Physiology (Chemical Biology) at P&S and director of the JP Sulzberger Columbia Genome Center before being recruited to Yale in 2008. Dr. Rothman and Dr. Schekman also shared the Louisa Gross Horwitz Prize, Columbia's top honor for achievement in biology and biochemistry research, and the Albert Lasker Basic Medical Research Award, both in 2002.

New Dean Leads College of Dental Medicine


Christian S. Stohler, DMD

An expert on pain management and jaw disorders was named dean of Columbia's College of Dental Medicine this year. Christian S. Stohler, DMD, DrMedDent, joined Columbia Aug. 1, 2013. He also serves as senior vice president of Columbia University Medical Center.

Dr. Stohler was dean of the University of Maryland School of Dentistry in Baltimore before moving to Columbia. At Maryland, Dr. Stohler led a curriculum update, oversaw Maryland's expansion to become the largest public dental school in the United States, obtained the volunteer commitment of more than 200 practicing dentists to teach real-world dentistry, fostered faculty entrepreneurship, re-engineered the school's business operation, and expanded the school's global presence. Dr. Stohler also led the construction of new, fully digital academic and clinical facilities on the university's downtown Baltimore campus and a smaller facility in Perryville, Md., which is digitally managed from the downtown campus.

Before joining the University of Maryland in 2003, Dr. Stohler spent more than 20 years at the University of Michigan in Ann Arbor, where he was professor at the School of Dentistry, research scientist at the Center for Human Growth and Development, director of research at the School of Dentistry, and professor and chair of the Department of Biologic and Materials Sciences.

Dr. Stohler has helped lead NIH-funded work into the genetics, endocrinology, and neurobiology of the human response to pain—particularly in patients with TMJD, a chronic and painful jaw joint disorder that affects from 5 percent to 12 percent of the population. He was a member of the team that was the first to show that thinking that a placebo will relieve pain is enough to prompt the brain to release endorphins, the body's own painkillers, and that this corresponds with a reduction in how much pain a person experiences. Dr. Stohler has authored more than 120 articles and book chapters that have been cited more than 5,400 times.

Dr. Stohler received his DMD from the University of Bern in Switzerland, where he also earned his DrMedDent in hematology and certificates in oral surgery and prosthodontics.

He received the Jerome M. & Dorothy Schweitzer Research Award from the Greater New York Academy of Prosthodontics and the Horace Wells Merit Award from the Connecticut State Dental Association. He also has been honored by the National Dental Association, the Orthodontic Education and Research Foundation, and the Pierre Fauchard Academy, the international dental honor society. He has chaired the Board of Scientific Counselors at the National Institute of Dental and Craniofacial Research and is a fellow of the American College of Dentistry and of the International College of Dentistry.

Dr. Stohler succeeds Ira B. Lamster, DDS, who stepped down in 2012 after a decade of leadership at the dental school. Ronnie Myers, DDS, vice dean for administrative affairs for the College of Dental Medicine, served as interim dean during the search.

Education Building Under Construction

A Sept. 16, 2013, groundbreaking ceremony launched the next phase of construction of the CUMC Medical and Graduate Education Building, a 14-story glass tower at 171st Street and Haven Avenue. Construction is expected to take 32 months.

The building's pioneering design, by Diller Scofidio + Renfro in collaboration with Gensler, has been described as "eye-catching," "a major landmark in the skyline of northern Manhattan," and "unorthodox for a medical school…in its reflection of a new more collaborative, team-based mode of teaching."

Breaking ground for the new education building are, from left, Dean Lee Goldman, Diana Vagelos, P. Roy Vagelos, Kenneth Forde, and Vice Dean for Education Ron Drusin.

The building, which will create a more vibrant and cohesive campus, is being made possible by support from philanthropists Diana and P. Roy Vagelos'54; Philip L. and Cheryl Milstein; and the Helen and Clyde Wu'56 family. Representatives from each family attended the ceremony along with Columbia Trustee Kenneth Forde'59 and employees of the architecture firms and the construction company, Sciame.

The building will have 100,000 square feet of high-tech classroom facilities, including an advanced center for immersive, simulation-based medical education, innovative learning spaces for both collaboration and quiet study, and student amenities such as lounges, a café, and student commons. Sustainable features, designed to obtain LEED Gold certification, include clean building techniques, such as air and dust mitigation, noise and pest monitoring, and waste management.

Columbia plans to use a unionized construction work force made up of at least 35 percent minority, women, and local trades people.

Reflecting on an Operation that Allowed a Child to Eat Normally (Except for the Occasional Hot Dog)

By Dawn Fallik

Mary Kmosko remembers falling to her knees when Bruce M. Hogg, a 1933 graduate of P&S, came out of the operating room and told her the procedure was successful. Her son, Andrew J. Kmosko Jr., had been born June 7, 1947, but could not eat because his esophagus was not connected to his stomach.

Doctors typically treated the condition by inserting a feeding tube, one that remained for a lifetime. But Dr. Hogg, a pediatric surgeon at what was then called Columbia-Presbyterian Medical Center, thought they should first try something else.

Three days after his birth, Andy underwent a three-hour surgery to re-attach the esophagus. He spent four months in the hospital and a year later was able to return to the hospital to eat a piece of birthday cake.

"I was so happy because I didn't want him to have a life tied to a feeding tube in his stomach," says Mary Kmosko, now 94. When she tried to thank Dr. Hogg he brushed off the praise, saying that he had been helped from above.

Mary and Andrew J. Kmosko Jr.

Andy Kmosko, now 66 and a retired health and physical education teacher who lives in Ship Bottom, N.J., said he returned to the hospital every week at first to dilate his esophagus. The trips slowed to every month and then every six months until he was 10 years old.

The family drove from North Plainfield, N.J., to New York City, about an hour away, for the visits. Mr. Kmosko remembers the drive, seeing the George Washington Bridge, and the smell of the hospital.

Jose M. Ferrer Jr.'38 oversaw the checkups. Dr. Ferrer, who died in 1982, became director of Columbia's surgical service at Bellevue Hospital and was director of Columbia's surgical service at Harlem Hospital from 1967 to 1973, when he became associate dean in charge of postgraduate medicine at P&S. Dr. Hogg died in Florida in 1965.

"It wasn't exactly pleasant," says Mr. Kmosko of the return checkups. "They had to put tubes down my throat to dilate the esophagus." The procedure worked. Mr. Kmosko can eat "fairly normally" although he has to be careful with tough foods like steak and he has had a few unpleasant run-ins with hot dogs.

"I can't eat too fast and I have to chew it a lot, but that's it," he says.

When Andrew turned 10, he was honored at a celebration at the hospital, where Dr. Hogg, who relocated to Miami in 1951, and Dr. Ferrer held a conference with other doctors to talk about the procedure. Andrew was there to answer questions and offer the patient perspective.

Mrs. Kmosko, who lives in an assisted-living center near her son in New Jersey, says it made her and her husband, a 95-year-old retired New Jersey patrolman, so happy to see their son grow up being able to eat alongside his friends. "The doctors were wonderful, and Andrew never complained about going to the hospital," says Mrs. Kmosko.

Andrew Kmosko said he realizes how lucky he is to have survived the operation. "My hope is that by being a coach and a teacher, I was able to give back in some way."

New Program Teaches Adolescents Skills for Life

By Keely Savoie

At 14, Joseph (not his real name) started grappling with debilitating depression and anxiety to such an extent that for five months he was unable to attend school. He struggled with suicidal thoughts and persistent urges to injure himself. Then he enrolled in Columbia's new adolescent psychiatry program designed for teens 14 to 18.

ISTOCK

The program, designed by Frederic Kass, MD, professor of psychiatry at CUMC and department vice chair; Lourival Baptista Neto, MD, associate professor of psychiatry; and Allison Baker, MD, instructor in psychiatry at CUMC, addresses the needs of teens struggling with the emotional and social tumult of adolescence, when the emotional skills of childhood may be outmatched by new stresses and demands. "What's so nice about working with kids at this time in their lives is that interventions can be very dramatic, in spite of the chaos and other challenges of working with adolescents," says Dr. Baker, the program's director. "You still have development on your side."

The program works on an outpatient basis, enabling troubled adolescents to stay active and engaged with their regular activities while imbuing them with the tools they need to cope with the emotional and social stressors.

"This is a time of tremendous change when we often see serious psychiatric problems begin to surface," says Barbara Stanley, PhD, professor of medical psychology (in psychiatry) at CUMC and director of the suicide intervention center at the New York State Psychiatric Institute. "Putting adolescents in the hospital is a huge disruption in their lives and can even be counterproductive."

Like Columbia's adult programs in psychiatry, the adolescent program is rooted in dialectical behavioral therapy (DBT), in which teens learn coping mechanisms to tolerate distressing thoughts without acting on them. The foundation of DBT is "mindful awareness," a practice derived from Eastern philosophy in which participants learn to recognize and accept their emotions instead of struggling against them. Between mindful awareness sessions, groups of teens rotate through other modules, each focused on developing a specific skill to manage emotions and navigate complex relationships. A teen-specific

module, "Walking the Middle Path," emphasizes empathy and compromise in handling conflict within the family.

"DBT is ideal for adolescents. It is the treatment of choice for the multiproblem adolescent, struggling with mood, anxiety and behavioral issues such as self-injury, substance use, and general impulsivity," says Dr. Baker. "But just as importantly, they really like it."

Patients also participate in a weekly group session with their parents and three to five other families. "There is the experiential piece of being in a room with other families who are struggling with similar issues," says Dr. Baker. "It not only shows that other families have similar challenges, but adolescents also enjoy applying their new skills to their peers' situations where it may be a bit easier to see more clearly."

DBT has proved remarkably effective, which is reflected in Joseph's case. "Over time, Joseph learned to manage his urges to self-harm and to communicate with his parents and express his need for more independence," says Dr. Baptista, who oversaw Joseph's treatment. "This helped him build the confidence to navigate social situations with greater ease."

Six months after entering the program, Joseph was no longer depressed and no longer experiencing suicidal thoughts. He was re-integrated into school, spent more time with friends, and made plans for his newly bright future.

"By diagnosing and treating emerging psychiatric problems, our goal is to prevent larger difficulties down the road," says Dr. Baker. "What's especially great about working with these kids is that they really get it. I find myself thinking, 'Gosh, I wish I had learned this stuff as a teenager.' It's just good life stuff."

The Adolescent Program can be reached at 212-326-8441. More information: www.columbiapsychiatry.org/clinicalservices/adolescent-program

Leukemia and Lymphoma Experts Join Center for Blood Cancers

With the recent addition of the Leukemia Service and the Center for Lymphoid Malignancies, Columbia's Center for Blood Cancers now has a full complement of world-renowned experts in every form of blood cancer treatment and research.

"It's critical to have physicians with expertise in a wide variety of blood cancers, not just one or two," says Stephen Emerson, MD, PhD, director of the Herbert Irving Comprehensive Cancer Center. "In patients with complicated blood disorders, the distinctions can be very subtle. To provide the very best care which incorporates the rapidly advancing genetic and molecular characterization of these rare diseases it is essential to have physician scientists with a focused expertise in each area."

"If you have a serious illness with an uncertain course, you want to go to a place where the person caring for you has a finger on the pulse of research," says Donald Landry, MD, PhD, chair of the Department of Medicine at P&S. "Our experts not only have experience with cancers that are quite rare, but specialize in their research and treatment."

Patients at the new Center for Lymphoid Malignancies, for example, are cared for by a group of clinician-researchers, nurses, and support staff who are experienced with standard treatment options and can offer the latest investigational therapies.

"We have the world's largest portfolio of new drugs for patients with all forms of lymphoma, which gives patients unparalleled options," says Owen A. O'Connor, MD, PhD, the center's director. "The center is constructed so that the clinical and research missions are integrated—the same nurse that treats you with traditional chemotherapy on one day administers an experimental protocol on another day. The nurse is familiar with your care and case history which, in this way, ensures complete patient continuity."

Many of the investigational (and even FDA-approved) treatments available at the center have been developed by the center's own physician-scientists. Dr. O'Connor developed vorinostat, the first histone deacetylase inhibitor approved by the FDA for the treatment of cancer (in 2005), and bortezomib, the first protease inhibitor treatment for mantle cell lymphoma (approved in 2006). More recently, he co-invented and developed pralatrexate, the first FDA-approved drug for the treatment of patients with relapsed or refractory peripheral T-cell lymphoma. Pralatrexate is now being approved around the world.

In collaboration with Dr. Landry, his latest research is focusing on a new class of drugs that target NF-κB, a "master regulator" that drives the misbehavior of cancer cells in many malignancies, including lymphoma, breast cancer, and prostate cancer. "We hope that we can soon move these drugs into the clinic," says Dr. O'Connor.

Clinical care and research are also intertwined in the blood cancer center's new leukemia service, a five-physician group recruited from Memorial Sloan-Kettering Cancer Center.

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The Center for Lymphoid Malignancies and the Leukemia Service join three other units of the Center for Blood Cancers: the blood and marrow transplant unit, led by Markus Mapara, MD, PhD; the multiple myeloma/amyloidosis group, led by Suzanne Lentzsch, MD, PhD; and the myelodysplastic syndrome group, led by Azra Raza, MD.

"Columbia's always had fantastic basic science with a real commitment to growing clinical programs," says one of the five new recruits, Joseph Jurcic, MD, director of hematologic malignancies. "Drs. O'Connor and Raza are international figures in lymphoma and myelodysplastic syndrome. Eight months before we arrived, Columbia recruited Dr. Mapara to head the bone marrow transplant program and Dr. Lentzsch, an international expert in multiple myeloma and amyloidosis. All of the pieces were coming together and the only thing that was missing was expertise in leukemia. Now we have the critical mass needed to treat patients with hematologic malignancies and really make a difference in the field—it's an exciting time."

Physicians within the leukemia group treat patients with all forms of leukemia, myelodysplastic syndrome, and myeloproliferative neoplasms, such as chronic myeloid leukemia. Mark L. Heaney, MD, PhD. specializes in other rare forms of leukemia, such as hairy cell leukemia, large granular lymphocyte leukemia, and hypereosinophilic syndromes. Todd Rosenblat, MD, treats patients with acute and chronic leukemias, myeloproliferative neoplasms, and myelodysplastic syndrome with a research focus in acute myeloid leukemia. Nicole Lamanna, MD, is a recognized leader in the treatment and clinical investigation of patients with chronic lymphocytic leukemia. Her research focuses on the development of combination therapies that include chemoimmunotherapy, immunomodulatory drugs, novel kinase inhibitors, and monoclonal antibodies. Through her research she is working to find more active, safer therapies for older patients with this disease.

Some investigational therapies under development in the group's laboratories have entered or are nearly ready for clinical trials. A novel therapy for acute myeloid leukemia, developed by Dr. Jurcic, uses antibodies to deliver a deadly radioactive payload directly to leukemia cells while sparing nearby healthy cells.

In addition to the expertise of Mark Frattini, MD, PhD, in treating leukemias is the development in his laboratory of a novel drug (MSK-777). This drug, designed to inhibit Cdc7 kinase, a novel signal transduction pathway to which many cancers are addicted, is on track to enter clinical trials in early 2014 with partial funding support from the Leukemia & Lymphoma Society's Therapy Acceleration Program. "This molecule is extremely selective for cancer cells and is efficacious in multiple cell lines and animal models of cancer including leukemia, lymphoma, ovarian, pancreatic, breast, non-small cell lung, and melanoma," says Dr. Frattini, director of research for the hematologic malignancies section. "It inhibits cellular DNA replication at the earliest stages and triggers a series of events that result in the death of the cancer cell."

The blood and marrow transplantation program is undergoing a major expansion with a new 18-bed inpatient unit opening in February 2014. Dr. Mapara, the director of the program, is leading preclinical and clinical investigations to prevent graft-versus-host disease, the complication of bone marrow transplantation that occurs when the donor cells attack the host's body. One molecule that has researchers' attention is called STAT1. "If you inhibit STAT1 on the donor side, you can significantly mitigate GVHD but still allow the transplanted marrow to attack the leukemic cells," says Dr. Mapara. The transplant program is closely interfaced with related centers at Columbia, including the leukemia and myeloma/amyloidosis services and the Center for Lymphoid Malignancies. Another major focus of the BMT program, in collaboration with the Columbia Center for Translational Immunology and the Columbia Transplant Initiative for Solid Organ Transplantation, is to utilize BMT in combination with solid organ transplantation for the induction of tolerance, which would obviate the need for lifelong immunosuppression.

Patients of doctors in the multiple myeloma/amyloidosis group headed by Dr. Lentzsch have access to multiple promising new treatments through clinical trials. The clinical and basic research of the program focuses on the optimal combination of novel therapies for relapsed and refractory multiple myeloma. Because amyloidosis is characterized by the buildup of a protein called amyloid that can affect various organs, its treatment relies on close collaboration with other researchers and specialists. Dr. Lentzsch is leading the Columbia Amyloidosis Multidisciplinary Program (CAMP), an international and national referral center for the diagnosis and treatment of amyloidosis that utilizes experts in cardiology, nephrology, neurology, and pathology to develop a tailored, multidisciplinary approach to patient care. "Since different organs can be affected by amyloids, you need the other doctors who have expertise in those areas," she says.

Myelodysplastic syndrome patients obtain the most precise and personalized care possible—including genomic analysis. "It is incumbent upon us to use every technological advancement and expertise that we have at our disposal to determine the best way to treat each individual patient," says Dr. Raza. "Here, we have a passion for research—but even more than that, compassion for the patient."

— Keely Savoie

Contact the Center for Blood Cancers at www.columbiabloodcancers.org or call 212-305-5098

David Fidock, PhD

David Fidock's Research Defines Resistance to Antimalarial Drugs and Guides New Discovery Efforts

By Keely Savoie | Photographs by Jörg Meyer

DEFEATING RESISTANCE

In western Kenya in 1990, David Fidock, PhD, first witnessed the raw impact of malaria. He had traveled there to study the human immune response to malaria parasites, but what he saw in the clinics was devastating. "You could see kids coming in who were already in a coma, and you knew that most of them wouldn't make it to the next day," he recalls. "It was shocking and humbling to understand that for these people, malaria was still an immutable part of life."

Even beyond witnessing the suffering malaria caused on an individual level, Dr. Fidock, now a professor of microbiology & immunology and of medical sciences (in medicine) at P&S, saw it in broader terms. "Malaria suppresses developing countries—in Africa in particular—and keeps them from being able to fully develop economically and politically."

The trip solidified his personal commitment to malaria research. "It led me to adopt an increasingly translational research agenda that focuses on understanding how antimalarials act, what causes treatment failure, and using that information to develop new generations of antimalarial drugs."

While malaria was eliminated in the United States by 1951, efforts to eradicate it from the rest of the world foundered after resistance to the main pharmacological treatment for it—chloroquine—arose in the 1950s and spread throughout the world. The disease quickly regained its footing in places where it had been on the verge of elimination and with greater force, as populations had lost their previous immunity. "Mortality rates from malaria skyrocketed," says Dr. Fidock. The first international effort to eliminate malaria was officially abandoned in 1972.

For decades afterward, no one knew how *Plasmodium falciparum*, the parasite that causes the most virulent and potentially lethal form of malaria, had acquired the ability to withstand drug treatment. Then, in 1999, Dr. Fidock, working at the NIH with Thomas Wellems, PhD, MD, identified the precise genetic mutations that enabled the parasite to evade the toxic effects of chloroquine. The finding was a landmark discovery in the world of malaria research and helped Dr. Fidock obtain several grants as a new investigator, including an Investigator in Pathogenesis of Infectious Disease Award and a New Initiatives in Malaria Research Award from the Burroughs Wellcome Fund, a Global Infectious Disease Scholar Award from the Ellison Medical Foundation, and a Speaker's Fund in Biomedical Research Award from the New York Academy of Medicine.

"Tom [Wellems] had applied a classical genetic approach, using a genetic cross in a chimpanzee to localize the genomic region associated with the inheritance of chloroquine resistance," Dr. Fidock recalls. "That ultimately led to us identifying and describing the gene now known as *pfcrt*, which we have since found also plays a key role in resistance to many therapies that have since been adopted to replace chloroquine." That discovery would change the course of malaria research and may yet prove to be the key to ultimately breaking the back of a disease that kills more than 600,000 young children every year, according to global statistics.

Gene Shapes Malaria Policy

The fact that chloroquine resistance was due to a change in a single gene rather than multiple genes demonstrated that the parasite was capable of acquiring resistance more quickly than anyone had imagined. Field research by Dr. Fidock and others working in countries where malaria is rampant has shown that mutant PfCRT was much more prevalent and more widespread than had been anticipated.

"While PfCRT is not used as a marker to guide treatment for individuals, it has helped shape malaria policy," says Dr. Fidock. "This was particularly evident in India where chloroquine continued to be used for years after it had been abandoned in Southeast Asia. Overwhelming evidence for the presence of mutant *pfcrt* alleles throughout India contributed to the Indian government's recent decision to stop using chloroquine as first-line therapy and instead adopt an effective antimalarial combination."

Artemisinin-based combination therapies (ACTs) currently constitute the first line of defense against malaria. These therapies—a combination

of a fast-acting drug called artemisinin and a slower-acting antimalarial, such as lumefantrine, amodiaquine, or mefloquine—are recommended by the World Health Organization to treat uncomplicated malaria around the world. The global movement away from chloroquine and toward ACTs is thought to be partially responsible for a nearly 30 percent reduction in child mortality worldwide in the past five years, accounting for as many as 100,000 to 200,000 deaths averted per year.

But evidence of emerging resistance to artemisinin along the Thai-Cambodian border shows that new drugs are desperately needed. A major effort under way in Dr. Fidock's lab is to delineate the genetic and molecular mechanisms that drive resistance to new potential drugs—and find ways to outmaneuver them.

"ACTs are being heavily pushed as the best way to treat malaria around the world, but there is a real concern about resistance spreading from Southeast Asia," says UCSF malaria expert Philip Rosenthal, MD, who tests new antimalarial regimens in Uganda and Burkina Faso. "That's why we need laboratory research—like David's—to take what we are finding in the field and guide us to new treatments."

New Drug Development: Avoiding Rapid Resistance

The many transitions the malaria parasite goes through in its lifecycle make it something of a moving target for drugs. Most drugs, like chloroquine, target the blood stage of the disease. It's this "blood stage" that causes disease—and even death in the host. Within the red blood cells, the parasites are safe from detection by circulating immune cells. They replicate at a furious pace, making eight to 24 copies of themselves every 48 hours and filling the cells to near bursting.

"You can get up to 20 percent of all red blood cells infected with the parasite, which can cause hemolytic anemia, a major cause of death in young children who do not have a sufficiently strong immune response specific to this parasite," says Dr. Fidock.

The parasites then have to pull themselves out of circulation; otherwise the misshapen cells would be cleared by the spleen. The parasites deposit sticky proteins on the surface of their host cells that cause the cells to accumulate inside small blood vessels in different parts of the body. The accumulation of defective cells in microvessels that feed the brain causes cerebral malaria with its associated seizures and coma, especially in children. In pregnant women, the infected cells attach to vessels present in the placenta, which can cause pregnancy complications, disease, and death.

In Dr. Fidock's lab, researchers expose these blood-stage parasites to promising antimalarial candidates to see how quickly mutations develop to protect the parasites. Drug candidates come from the public-private partnership Medicines for Malaria Venture and industry-based colleagues at the Novartis Institute for Tropical Diseases, GlaxoSmithKline, and Sanofi.

"Exposure to sub-lethal concentrations of the drug will kill most of the parasites, but if some parasites can survive, we know that the organism is capable of developing relatively rapid resistance to the drug in question," says Marcus Lee, PhD, an associate research scientist in the Fidock lab. "A particularly ineffective drug may give you resistance fairly easily from a relatively small number of parasites, but for some drugs, it's hard to evolve resistance in the lab; these are potentially good therapeutic candidates."

Even the bad candidates provide useful information for the researchers. If a mutation arises again and again, it is flagged as a potential hotspot of resistance. Identifying the gene that confers resistance does two things: "If we can validate the gene, we can identify the source of the resistance," says Dr. Lee. "And we can obtain important clues as to the actual cellular target of the drug." That information can then be parlayed into efforts to identify further potential therapies.

The studies also show how current drugs can be used most effectively, as some genetic mutations that confer resistance to one drug increase susceptibility to another. "PfCRT mutations cause resistance to chloroquine

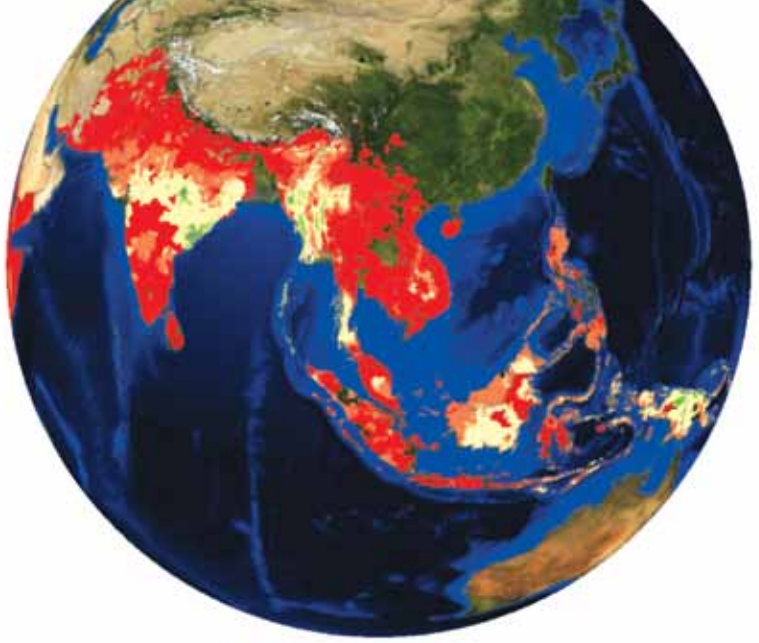
Sankar Ghosh, PhD

I-4

The Initiative in Infection, Immunity, and Inflammation, known more simply as "I-4," aims to gather those previously disparate fields of research under one umbrella to help scientists identify areas of intersection. Harnessing their interconnectedness will enable researchers to work together to develop novel approaches and solutions to diseases that continue to plague the world.

David Fidock's work in malaria fits into that goal and develops Columbia's overall strength in these areas of research, says Sankar Ghosh, PhD, the Silverstein and Hutt Family Professor of Microbiology & Immunology, department chair, and leader of I-4. Infection remains a major medical problem in all parts of the world. Pandemics, including malaria, are complicated by drug-resistant pathogens, requiring nuanced public health solutions based on advanced understanding of the molecular and genetic mechanisms that allow these organisms to continue to thwart eradication efforts.

"A malaria vaccine has been a holy grail. The disease is so endemic in poorer parts of the world, a liver-stage vaccine is the only thing that will ultimately make a difference in eradication," says Dr. Ghosh. "As we think about where our medical school is heading, investment in these key areas of research will be critical to developing our future strength."



Expanding treatment to more than 90 percent of infected individuals, combined with mosquito control measures, is predicted to reduce transmission of the malaria parasite to such levels that the disease could be eliminated from regions with low to moderate disease transmission. This map shows the predicted probabilities of eliminating malaria if a five-fold reduction in transmission levels is achieved. Probabilities of malaria elimination range from more than 90 percent (bright red) down to less than 50 percent (darkest green). Areas without color indicate no malaria. This calculation, based on a model produced by a team that includes Columbia's David Fidock, is now being used to help guide malaria elimination efforts.

but, curiously, they make parasites more susceptible to mefloquine, one of the drugs used in ACTs," says Dr. Lee.

Dr. Fidock believes that by leveraging the drug vulnerabilities against one another, they can prevent the parasite from developing genetically stable resistance. Using field data and mathematical models, they can predict the best combinations of drugs to be used in different areas. "In one study, we showed that parasites that are resistant to chloroquine manifested some cross-resistance to amodiaquine, which is combined with artemisinin in a common ACT. But at the same time they were increasingly susceptible to lumefantrine, an alternative combination that is also frequently used," says Dr. Fidock. In Africa, many countries now routinely use both combinations to exert opposing pressures on the parasite; as parasites become resistant to one combination they become more susceptible to the other.

Reaching for the Holy Grail of Malaria Research

Though the blood stage of the malaria parasite causes the disease, the holy grail of malaria researchers is a drug or vaccine that can stop the parasite at an earlier stage, the liver, preventing not only the disease's symptoms, but also its further spread. Yet multiple barriers have thwarted the research, from the ability of the parasite to hide from the human immune system to the difficulty in studying the liver stage in the lab.

After leaving an infected mosquito, the parasite makes the liver its first destination in the human host. A relatively small number of sporozoites, the motile life-stage of the parasite, come from a single mosquito bite. Even the small initial inoculum serves the parasite. "There is a survival benefit in the delivery of such a small number of parasites, because they can slip below the immune system's radar," says Dr. Fidock.

Within an hour, sporozoites can reach the liver and invade hepatocytes. Once sequestered there, they reproduce for the next six to seven days, with each sporozoite producing up to 30,000 merozoites—which then leave the liver to invade the host's red blood cells.

During their time in the liver, the sporozoites must either synthesize or scavenge massive amounts of lipids from the host to support the extensive replication that takes place before the symptomatic blood stage. How and where they get hold of those lipids is what Dr. Fidock believes holds the key for the development of a liver stage vaccine.

"If the parasite's ability to gather or produce lipids could be genetically attenuated, the parasites would arrest in the liver, where they would then persist for weeks and generate a robust immune response from the host," says Dr. Fidock. "A vaccine loaded with genetically attenuated parasites would deliver far more sporozoites than a mosquito bite, and that would substantially boost the immune response as well."

Preliminary results from a liver-stage vaccine developed by one of Dr. Fidock's collaborators suggest that some of the challenges in developing such a vaccine can be met. In a 2013 study published in Science, a vaccine made of irradiated sporozoites provided 100 percent protection to a small number of volunteers. Sanaria, a private biotechnology firm in Maryland, produced the vaccine with funding from the National Institute of Allergy and Infectious Diseases Small Business Innovative Research Program and the Bill & Melinda Gates Foundation.

"This result by Sanaria is ground-breaking because they proved that it is technically possible to produce a cryopreserved malaria vaccine that provides protection against a live sporozoite challenge," says Dr. Fidock. "Vaccination with irradiated sporozoites had previously been demonstrated but never with sporozoites that had been cryopreserved and stored. This shows us that an effective malaria vaccine can be generated at an industrial scale. The challenge now is how to scale this up to the numbers of doses required to have a significant impact in reducing infant mortality in sub-Saharan Africa."

Identifying the gene that confers resistance to antimalarial drugs does two things—identifies the source of the resistance and provides important clues about the cellular target of the drug.

By using genetically modified sporozoites in the vaccine, with mutations that specifically target the liver stage, such a vaccine may be easier to produce than one made with irradiation, which hits different genes each time. Sanaria and Dr. Fidock are working together to create such a vaccine.

While a commercially available vaccine is at best years away, the hope is that one day, innovators and researchers like Dr. Fidock will be able to put a stop to the disease that has been racking so many nations in misery and sickness for centuries.

"With what we know about the history of drug resistance in malaria and current early signs of resistance to artemisinins, resources and research to fight malaria are more urgently needed than ever before to eliminate this disease while the opportunity still exists," says Dr. Fidock. "Anything less than a coordinated, all-out effort by all partners will lead to the continued and unnecessary deaths of hundreds of thousands of children in malaria-endemic areas each year." ❖

Manual Dexterity

By Philip Berroll

P&S Faculty Help Produce Psychiatry's DSM-5

It has been called "the bible of psychiatry," the guidebook used by mental health professionals throughout the United States to diagnose mental illness, which is the first step is selecting a treatment. Published by the American Psychiatric Association, the Diagnostic and Statistical Manual of Mental Disorders contains detailed descriptions of a wide variety of behavioral maladies. It is used not only by psychiatrists, psychologists, social workers, and other therapists, but also by insurance companies, to determine coverage for mental health treatment, and school districts, to provide funds for special services for students with developmental problems.

Professor Emeritus Robert Spitzer, MD, is widely considered to be the "grandfather" of the DSM, transforming the manual in 1980 from a list of diagnostic codes and brief definitions into a scientifically based compendium of operationalized diagnostic criteria that allowed mental health professionals to reliably make psychiatric diagnoses. The DSM has been revised several times since to reflect new information gleaned from psychiatric research. A number of P&S and New York State Psychiatric Institute faculty members worked on earlier editions of the manual, and the most recent—DSM-5, published in May 2013—is no exception.

Jeffrey Lieberman, MD, professor and chair of psychiatry at P&S and director of NYSPI, began his term as president of the APA just as the new edition was going to press and helped to orchestrate its launch. Several faculty joined the work groups involved in making changes to DSM-5, and two of them served as work group chairs: David Shaffer, MD, professor of psychiatry and of pediatrics, headed the ADHD and disruptive behaviors work group, and B. Timothy Walsh, MD, professor of pediatric psychopharmacology, led the eating disorders work group.

P&S alumni also contributed to DSM-5, including Kimberly Ann Yonkers'86, professor of psychiatry and of obstetrics, gynecology, and reproductive sciences at Yale, who served on the task force that coordinated the efforts of all the work groups. Arthur J. Barsky'69, professor of psychiatry at Harvard Medical School, was a member of the somatic symptoms disorders work group, and Robert S. Pynoos'73, professor in residence in psychiatry and biobehavioral sciences at UCLA, was a member of the anxiety, obsessive-compulsive spectrum, posttraumatic, and dissociative disorders work group.

The process of creating a new edition of the DSM, the first in almost two decades, stretched out over 13 years, including the first eight years that were focused on devel-

Illustration by James Steinberg

oping a research agenda. Once the work groups were formed in 2007, their members, drawn from hospitals and universities across the United States and overseas, began the process by conducting comprehensive literature reviews as well as analyzing secondary data sets to determine what changes needed to be made. Based on this review, proposed changes to the diagnostic definitions were made and posted on a public website for comment and feedback.

Dr. Walsh's work group colleague, Evelyn Attia, MD, professor of psychiatry and a 1986 graduate of P&S, says the group "saw our task as taking a careful look at how the definitions for the eating disorders were working, and if something was working well, to leave it be. But if we had enough data to indicate that a definition was not working well or did not correspond with the current literature on a disorder, we were going to use the data to make changes."

Each work group then submitted its draft for both internal review and public comment—a process Dr. Walsh calls "not complicated, but demanding. We had to provide written justification for any significant change we recommended," he says. "Then the proposals would be reviewed by several committees, to ensure quality control and that the recommendations passed scientific rigor."

The eating disorders section underwent significant revisions. A number of new disorders are listed, including binge eating disorder, whose sufferers have uncontrolled episodes of binge eating but unlike those with bulimia nervosa do not purge themselves afterward, and Avoidance Restrictive Food Intake Disorder (ARFID), a disorder involving an eating disturbance that results in very low weight or nutritional deficiency for reasons other than a fear of fatness, such as avoiding eating solid foods after almost choking to death on some meat. Other changes involved improving diagnostic practices among clinicians. Dr. Shaffer's work group, for example, was concerned with how bipolar disorder was being overdiagnosed in adolescents and children. "It was being used very loosely," says Dr. Shaffer, "for chronically moody kids who would frequently have severe temper outbursts. Some people thought that this was the childhood version of adult bipolar disorder and no prospective follow-up studies have shown that such children go on to develop bipolar disorder. The best predictor of bipolar disorder is a prolonged depression in adolescence. Severe tantrums in early childhood predict later anxiety and mood problems, and the optimal treatment for this has not been adequately studied. The bipolar label tended to limit treatment options. We wanted to address this problem in DSM-5 by adding a new disorder to cover such presentations, called disruptive mood dysregulation disorder, so that clinicians would have a proper diagnostic home for such children."

'It's a matter of formulating more precise delineation, not of pathologizing normal behavior.'

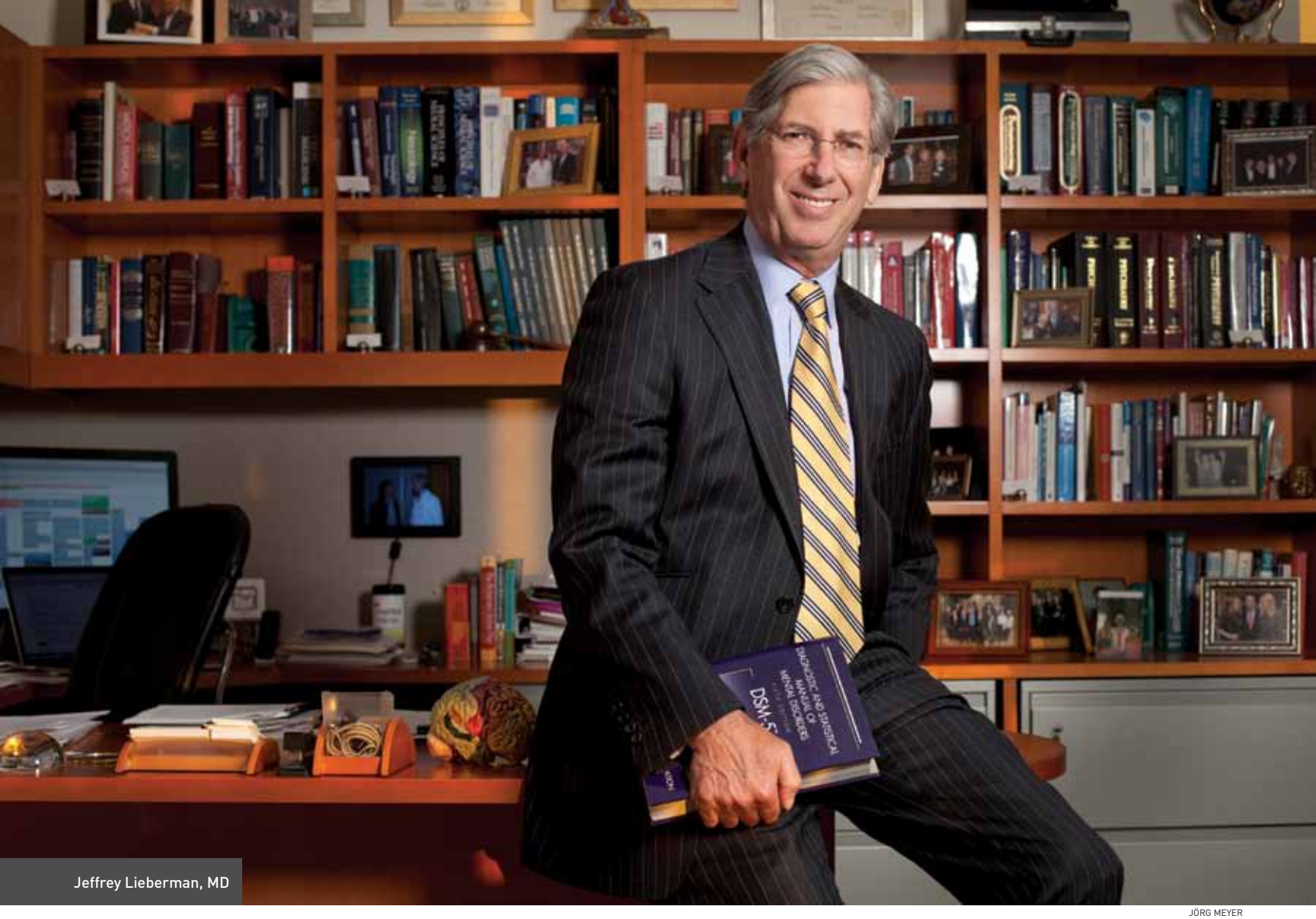
For H. Blair Simpson, MD, PhD, professor of psychiatry at CUMC, who served on the anxiety work group, the biggest change involved the way several well-known anxiety disorders were categorized. "Some disorders that were included as part of the anxiety disorders section in DSM-IV have now been pulled out and placed into their own sections," says Dr. Simpson. "In particular, posttraumatic stress disorder and obsessive-compulsive disorder are now each in their own chapters and grouped with different disorders."

Another member of Dr. Simpson's group, Roberto Lewis-Fernández, MD, professor of psychiatry at CUMC, focused on enhancing the cross-cultural validity of how disorders are described. The result was the "cultural formulation interview," a guideline for clinicians to follow in evaluating the cultural aspects of patients' symptoms.

"For example, a Hispanic person might come in and say he is seeing shadows or hearing his name called when he's upset," says Dr. Lewis-Fernández, who chaired a subgroup dealing with cultural issues. "In his culture, this is a common way of describing feeling distressed. But if the clinician doesn't know that, he might mistakenly assume the person has a psychotic disorder. We wanted to clarify how that difference should be assessed, and I'm happy to say that DSM-5 has made several useful changes in that respect."

DSM-5, like its predecessors, has attracted a good deal of controversy. By virtue of his position as APA president, Dr. Lieberman has become one of the manual's main spokespersons. He is quick to respond to critics, both inside and outside the psychiatric profession, who assert that DSM-5 is guilty of "overdiagnosis," labeling too many behaviors as disorders.

"That's just plain wrong," he says, adding that psychiatry is no different from other areas of medical science, which are constantly identifying diseases that were not previously recognized, such as autism (not distinctly identified until 1980) and hoarding disorder (now



Jeffrey Lieberman, MD

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included in DSM-5). "It's a matter of formulating more precise delineation, not of pathologizing normal behavior," says Dr. Lieberman. "In fact DSM-5 actually has fewer diagnoses than DSM-IV as a result of consolidating some conditions like substance abuse and substance dependence disorders into substance use disorders."

Another criticism is that DSM-5 does not reflect recent developments in neuroscience, biology, and genetics that have enhanced scientists' understanding of the workings of the brain. But Dr. Lieberman believes the available research findings did not justify a wholesale reworking of the diagnostic nosology. "The architects of DSM-5, and psychiatry in general, would have liked nothing better than scientific advances to bring us to the point where we know that this gene or toxic protein or trauma produces this disorder, and you can make the diagnosis by a blood test or X-ray or the proper procedure," he says. "God willing, that day will be coming very soon. But the reality is that we're not there yet."

Ultimately, despite these limitations in psychiatry's understanding of the brain and the underlying causes of mental disorders, DSM-5 continues to be a vital tool for mental health professionals. "DSM-5 is an aid to help clinicians talk to other clinicians," says Dr. Simpson. "Let's say a clinician in Houston is treating someone with OCD (obsessive-compulsive disorder). When that patient moves to Seattle and the clinician wants to refer him, she can call up a doctor in Seattle and say, 'This patient has OCD' and describe the symptoms. Thanks to DSM-5, they are both using the same language for the clinical syndrome; they both know what they're talking about."

Other P&S psychiatry faculty also contributed to DSM-5. Michael B. First MD, professor and editor of DSM-IV-TR, a text revision of 1994's DSM-IV, was an editorial and coding consultant for DSM-5. Michael R. Phillips, MD, professor, was on the mood disorders work group. Richard B. Krueger, MD, associate professor, and Heino Meyer-Bahlburg, Dr. rer. nat., professor, were on the sexual and gender identity disorders work group. Deborah Hasin, PhD, professor of epidemiology (in psychiatry) at CUMC, was on the substance-related disorders work group. ❖

PHOTOS BY JÖRG MEYER

Celebrating of the White

AS A MEDICAL STUDENT arriving at P&S in August of 1993, Rebecca Tennant'98 took part in the first-ever White Coat Ceremony along with 149 other students in the incoming class. Today she remembers how honored she felt to don her first white coat and recite the Hippocratic oath in front of an audience of faculty, colleagues, family, and friends.

"I always knew I was going to go into primary care and the emphasis on compassion in the ceremony really resonated with me. I was proud to be at a school that took that seriously," says Dr. Tennant, who is now a family practice physician at the Sutter East Bay Medical Foundation in Albany, Calif.

The White Coat Ceremony is designed to welcome entering students and encourage them to start thinking about professionalism, empathy, and humanistic patient care from the very beginning of their medical training. It became an annual tradition at P&S that quickly spread to other schools of medicine, dentistry, and osteopathy throughout the United States and around the world.

In 2013, P&S celebrated the 20-year anniversary of this popular rite of passage. As in past years, the ceremony was held in the P&S Alumni Auditorium during orientation week. Remarks were delivered by P&S Dean Lee Goldman, MD; Robert E. Kelly, MD, president of NewYork-Presbyterian Hospital; and Arnold P. Gold, MD, chair emeritus of the Arnold P. Gold Foundation. Siddhartha Mukherjee, MD, PhD, assistant professor of medicine at P&S and author of the Pulitzer Prize-winning book, "The Emperor of All Maladies: A Biography of Cancer," delivered the keynote address.

Per tradition, members of the Class of 2017 were called to the stage and "cloaked" by faculty members in a white coat that they will wear during their clinical rotations. Together, as a class, they recited the Hippocratic oath, pledging to practice their art "in uprightness and honor."

"It's an incredibly inspiring ceremony that conveys the spirit and the sacredness of being a physician. Students and families are sometimes brought to tears by it," says Lisa A. Mellman, MD, P&S senior associate dean for student affairs and professor of psychiatry, who leads the recitation of the oath.

20 Years Coat Ceremony

By Jen Uscher

Though steeped in tradition, the ceremony has changed in small ways in recent years. In 2011, the ceremony was moved to the beginning of orientation week rather than the end to enable more family members and significant others to attend after helping the students move in. Also, the students now attend a workshop on the morning before the ceremony in which they discuss the meaning of the Hippocratic oath in small groups with faculty members and senior students. "By moving the workshop and the ceremony to the very beginning of orientation, we're giving the students the opportunity to reflect on the privileges and responsibilities of becoming a medical student and a physician throughout the week," says Dr. Mellman.

As they progress through medical school, P&S students will recite the Hippocratic oath again at the Student Clinician's Ceremony that marks the transition to full-time clinical work and again at graduation.

The ceremony was originally established and continues to be sponsored by the Arnold P. Gold Foundation. A professor of clinical neurology and clinical pediatrics at P&S for more than 40 years, Dr. Gold co-founded the foundation with his wife, Sandra O. Gold, EdD, and a group of Columbia colleagues and community leaders in 1988. The foundation's mission is to help preserve the tradition of the caring, humanistic physician through such programs as oath-taking ceremonies, symposia, professorships, and fellowships. Medical schools can apply for a grant from the foundation that covers many of the costs of launching a White Coat Ceremony.

"I believe the ceremony caught on so fast at medical schools around the world—including in places like Japan and Israel—because there was a need for it and it makes a big difference in the professionalization of the students," says Linda Lewis, MD, former senior associate dean for student affairs and now clinical professor emeritus of neurology. Dr. Lewis served on the board of trustees of the Arnold P. Gold Foundation and for 12 years introduced the speakers and led the oath recitation at the White Coat Ceremony.

The Gold Foundation has always provided a lapel pin with its logo—a stethoscope in the shape of a heart, surrounded by the words "humanism in medicine"—for each student's white coat. Like many other P&S alumni, Christine Taylor'97, an obstetrician/gynecologist in Durant, Okla., kept her pin as a memento and notices when a colleague is wearing one. "I remember seeing the Gold Foundation pin on a student who went to another medical school during my residency at Saint Louis University Medical Center and feeling proud that we were the first to get it," says Dr. Taylor.

"We were all very excited and proud to be the first ones to take part in the White Coat Ceremony," says Patrice Alves'97, an internist at San Antonio Preventive and Diagnostic Medicine in San Antonio, Texas. "When you receive that coat—even though you're at a point when you haven't yet undertaken the study let alone the practice of medicine—it reminds you that what you're doing is not an easy task or something to be taken lightly. People will come to you when they are very vulnerable and you need to go ahead and help them in the way they expect. It's very humbling."

Hannah I. Lipman'98, associate professor of clinical medicine and chief of the Bioethics Consultation Service at Montefiore Medical Center-Albert Einstein College of Medicine, says she found it meaningful that her family was in the audience when she took part in the first White Coat Ceremony.

"It was a way to bring our loved ones with us at the beginning of the journey. I can't imagine starting such an important journey without marking it somehow," says Dr. Lipman.

During Albert Einstein College of Medicine's orientation week, Dr. Lipman now helps facilitate discussions about professionalism with students as they work together to craft an oath to recite at the school's equivalent ceremony, which is called "On Becoming a Physician Ceremony."

"Going through the process of reading the Hippocratic oath is a way for you to start thinking about the patients you will be attending to. It helps you to stop and think that although there will be studies in the classroom, in the end you will be taking care of individuals," says Dr. Alves.

"A White Coat Ceremony can really set the stage for demonstrating to incoming students that the faculty and the medical community are here to support them in taking on their new responsibilities, which are quite profound," says Dr. Lipman. "It also shows that in medical education we care not only about foundational science knowledge and how to apply it in our clinical reasoning, but about things like communication skills and advocating for patients."

For Dr. Tennant, the coat she received at the ceremony and has kept all these years serves as a reminder that taking care of people is a privilege. "I treat every patient the same regardless of how much money they have or whether or not they have insurance. That's something I learned from the very beginning at Columbia," she says. "I still hold in my heart the feeling that wearing that coat was the beginning of my journey to becoming the compassionate doctor that I am now." ❖

Alumni News & notes

Marianne Wolff'52, Alumni News Editor
Peter Wortsman, Alumni News Writer
Additional class notes by
Bonita Eaton Enochs, Editor

1937

At age 102, Ephraim P. Engleman is still a veritable force of nature. One of the founding fathers of American rheumatology, he sees selected patients at his office at the Rosalind Russell Medical Research Center for Arthritis, of which he is founding director, at the University of California, San Francisco. When not advising patients, Eph plays his Stradivarius and Guarneri violins. On a recent visit he demonstrated fingering position.

1943

T. Berry Brazelton received one of 18 Presidential Citizens Medals given in February at a White House ceremony. The Presidential Citizens Medal, the nation's second highest civilian honor, recognizes service to country or fellow citizens. Also, see Alumni in Print to read about his memoir.

1943D

Hobart A. Lerner, age 94, was recognized as the most senior alumnus attending the 2013 Alumni Reunion Weekend. Hobart is emeritus clinical professor of ophthalmology at the University of Rochester Eye Clinic, University of Rochester School of Medicine and Dentistry. See photos and read more about Alumni Reunion Weekend online at www.columbiamedicinemagazine.org.

1953

P&S alumni, faculty, family, and friends gathered in April at Felidia Restaurant, the East Side Manhattan flagship trattoria of broadcaster-chef Lidia Bastianich, to celebrate the establishment of the Stanley Edelman and Stephen A. Jarislowsky Professorship in Surgery at P&S. Dr. Edelman toasted the first Edelman-Jarislowsky Professor, Daniel L. Feingold, MD.

PETER WORTSMAN

Ephraim Engleman'37 demonstrates fingering position for his Stradivarius

T. Berry Brazelton'43

Anke Nolting with Elinor and Hobart A. Lerner'43D

Stanley Edelman'53 with Dean Lee Goldman

Columbia's Alumni Medal to Marvin M. Lipman'54

Marvin Lipman'54

Marvin M. Lipman'54 was awarded a 2013 Alumni Medal from Columbia University for contributions that began as an undergraduate at Columbia College and continued at P&S and beyond. He was one of 10 recipients of this year's medal, which recognizes alumni for distinguished service of 10 years or more to the University.

"I always wanted to go to P&S," said Dr. Lipman in an interview taped for the fall Columbia Alumni Association Leaders Assembly Gala, which honors alumni medal recipients. "That was my dream." After graduating from Columbia College, his dream came true; he enrolled at P&S, initiating what he described as the best four years of his life. Medical school was followed by an internship and assistant residency at Presbyterian Hospital, a two-year stint as a captain in the U.S. Army Medical Corps in Germany, completion of his residency training at the Massachusetts General Hospital in Boston, and then back home to an NIH fellowship in endocrinology under Dr. Joseph Jailer at Columbia.

Since 1967, Dr. Lipman has served as chief medical adviser and editor of Consumer Reports, which has published more than 300 of his articles. He continues to practice medicine as an endocrinologist with the Scarsdale Medical Group. He is clinical professor emeritus at New York Medical College, where he taught for nearly 30 years.

He has chaired his P&S class since graduating in 1954 and in 2004 was instrumental in organizing fundraising for his 50th P&S reunion. He and classmate P. Roy Vagelos achieved a first among reunion classes: 100 percent of the class donated funds. Hoping that subsequent classes may achieve the same milestone, Dr. Lipman adds, "Sixty home runs stood for a long time…until Roger Maris came along." In 2008, the P&S Alumni Association honored him with its Gold Medal for Meritorious Service. He currently serves as treasurer of the P&S Alumni Council.

Dr. Lipman and his wife, Naomi Loeb Lipman (a 1951 Barnard graduate), have four children.

"When you're a student, the college invests in you," he said. "When you graduate, you take that investment with you for the rest of your life. The college becomes a part of you."

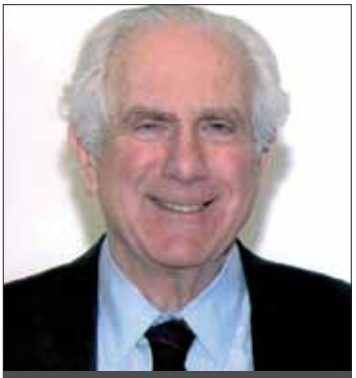
1957

During Alumni Reunion Weekend, Donald Gerber and his wife, Marcia Gerber'67, shared the 2013 gold medal for meritorious service to P&S and its Alumni Association. They have been mainstays of the Alumni Association for more than two decades, between them serving on almost all committees and in most key capacities, Donald most recently as vice president and president-elect. Donald is professor of clinical medicine (rheumatology), clinical assistant dean, and administrative course co-director for third-year medicine at SUNY Downstate. See photos and read more about Alumni Reunion Weekend online at www.columbiamedicinemagazine.org.

During Alumni Reunion Weekend Robert B. Wallace won the 2013 gold medal for outstanding achievements in clinical medicine. One of the country's leading cardiothoracic surgeons, Robert is former chair and professor of surgery at the Mayo Clinic and Medical School and later was a faculty member at Georgetown University Medical Center. He initiated the coronary artery surgical program and performed the first successful total correction of transposition of the great vessels (the Rastelli procedure) at Mayo, among many other accomplishments. See photos and read more about Alumni Reunion Weekend online at www.columbiamedicinemagazine.org.

1962

See Alumni in Print to read about a book by Peter F. Cohn, who has written a novel under the pen name Alan N. Clifford (a combination of the first names of his sons). His previous book, "The Fatherland Files," was a thriller. "My hobby is fiction writing. I've done enough



Peter Cohn'62

medical books and articles. The protagonists are always cardiologists who get involved in Hitchcock-like situations," Peter says.

See Alumni in Print to read about Norbert Hirschhorn's latest collection of poems.

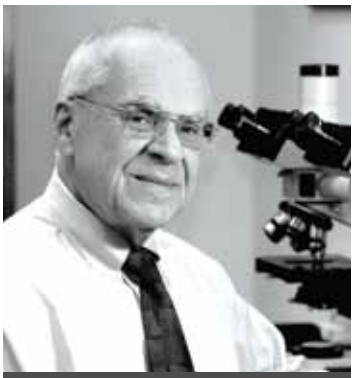
Peter Puchner was the 2013 Honorary Alumni Day Chairman at this year's Alumni Reunion Weekend. Peter is professor emeritus of clinical urology and associate dean of student affairs at P&S. See photos and read more about Alumni Reunion Weekend online at www.columbiamedicinemagazine.org.

Henry A. Solomon has made 12 trips to China in the past three years on behalf of the American College of Cardiology, for which he serves as senior medical adviser. He meets with academic, government, and business leaders to promote educational programs throughout China.

Henry A. Solomon'62

1963

Paul Bachner received the Laboratory Accreditation Program Service Award from the College of American Pathologists in a special ceremony in October. Paul is professor and immediate past chair of the Department of Pathology and Laboratory Medicine at the University of Kentucky in Lexington and director of laboratories at the University of Kentucky. He also is medical director of the Division of Laboratory Services of the Commonwealth of Kentucky. The College of American Pathologists established the award to recognize a member for exceptional and outstanding service to the college's laboratory accreditation program. Paul, who started as a lab inspector in 1968, was honored for more than 45 years of service. He has served twice as a regional commissioner, as a member of the Council on Accreditation, and is currently a member of the laboratory accreditation committee.



Paul Bachner'63

1963 PhD

László Bitó, professor emeritus of ocular physiology at P&S, was awarded the Helen Keller Prize in May 2013 for his contributions to vision research. His work has led to the development of Xalatan, which has saved the sight of millions by lowering eye pressure in glaucoma sufferers. He was awarded the Proctor Medal, the highest honor in the field of ophthalmology research, in 2000 and the Columbia University Award for Distinguished Achievement in 2004. The Helen Keller Prize, created in 1994 by the Helen Keller Foundation, seeks to raise awareness for vision research. Recipients are selected by an international panel of biomedical researchers and physicians and presented with

Multiple generations of Columbia students and graduates were in attendance in Seattle when László Bitó'63 PhD received the 2013 Helen Keller Prize. From left are Huy Nguyen'15; Katie Wert'13 PhD; Aakriti Garg'14; Dr. Bitó; Qing Wang'13 PhD (and P&S 2014); Ilyas Washington, assistant professor of ophthalmic science at P&S; and Stephen Tsang'96 PhD/98 MD, the László Z. Bitó Associate Professor of Ophthalmology and Pathology & Cell Biology at P&S.

the award at the annual convention of the Association for Research in Vision and Ophthalmology.

1964

Classmates John Mulliken and Barry Davidson posed for a photo at the Museum of Fine Arts in Boston on Labor Day 2013.

John Mulliken'64 and Barry Davidson'64

1965

Anthony H. Horan has reissued his book, "The Big Scare: the Business of Prostate Cancer," in a print on demand format as "How to Avoid the Over-diagnosis and Over-treatment of Prostate Cancer" at dranthonyhoranmd.com. "I used the book as a prop when I hosted a reception for students accepted at P&S to meet the director of admissions at the Marine Memorial Club in San Francisco," Tony writes. "The students were, of course, sensational. I told them that graduates of P&S tend to write books; that they could be the puppeteer instead of the puppet dancing to the tune of 'white papers' written by others" if they attended P&S. Tony adds that in preparing for the reception, he was surprised to learn of "one or two books" written by his grandfather, John Rogers, an 1892 P&S graduate. "When I find out what they were, Alumni Notes will learn too."

Dorothy S. Lane received the 2013 Virginia Kneeland Frantz'22 Distinguished Women in Medicine Award at this year's Alumni Reunion Weekend. Dr. Frantz, the first woman to serve as a surgical intern at Presbyterian Hospital, was best known for her work in the pathology of the thyroid gland and for a classic introductory textbook on surgery, which she co-authored with Dr. Harold Harvey. Dorothy is the SUNY Distinguished Service Professor, vice chair and director of the Division of Community and Behavioral Health in the Department of Preventive Medicine, and associate dean for continuing medical education at Stony Brook University School of Medicine. See photos and read more about Alumni Reunion Weekend online at www.columbiamedicinemagazine.org.

During Alumni Reunion Weekend, Robert P. Lisak received the 2013 gold medal for outstanding achievements in medical research. A pioneer in the field of neuroimmunology, Robert is the Parker Webber Chair of Neurology, professor of neurology, and professor of immunology and microbiology at Wayne State University. He has made major contributions to understanding the pathogenesis and treatment of patients with multiple sclerosis and related demyelinating diseases of the nervous system, myasthenia gravis, and inflammatory demyelinating neuropathies. See photos and read more about Alumni Reunion Weekend online at www.columbiamedicinemagazine.org.

1967

During Alumni Reunion Weekend, Marcia Gerber shared the 2013 gold medal for meritorious service to P&S and its Alumni Association with her husband, Donald Gerber'57. Described as mainstays of the Alumni Association for more than two decades, Marcia and Donald have served on almost all committees and in most key capacities. Marcia most recently served the alumni association as corresponding secretary. Marcia is clinical associate professor of medicine in the College of Medicine at SUNY Downstate, where she also is dean of admissions. In 2010 she received the Extraordinary Woman of Downstate Award. See photos and read more about Alumni Reunion Weekend online at www.columbiamedicinemagazine.org.

1969

See Alumni in Print to read about a book by Steven P. Goldsmith. He has a Portland, Ore., practice that emphasizes finding natural solutions to health problems.

Steven Goldsmith'69

1970

Donald O. Quest was named the 2013 Distinguished Practitioner by the Society of Practitioners of Columbia-Presbyterian Medical Center. Don, former president of the P&S Alumni Association, is the J. Lawrence Pool Professor of Neurological Surgery at CUMC and assistant dean at P&S.

Donald Quest'70

1971

Eve Slater was among those named to the new Board of Directors of the Alliance for Clinical Research

Cancer Research Academy Inductees

Several alumni have been named inaugural fellows of the American Association for Cancer Research's new academy. They were among the first 106 fellows inducted into the academy at the AACR's annual meeting in Washington, D.C., in April 2013. P&S alumni in the group are Karen H. Antman'74, Bayard D. Clarkson'52, James F. Holland'47, Alfred G. Knudson Jr.'47, Robert J. Lefkowitz'66, and Daniel D. Von Hoff'73.

Excellence, a nonprofit dedicated to building an integrated global system to enhance clinical research.

The 2013 Lifetime of Learning Award was presented to Martha G. Welch at this year's Alumni Reunion Weekend. After 25 years of practicing child and family psychiatry, Martha joined the P&S faculty in 1997 to test her bedside findings at the bench. She is co-director of the BrainGut Initiative, which she established in 2006. See photos and read more about Alumni Reunion Weekend online at www.columbia-medicinemagazine.org.

1974

Karen Antman was honored with the 2013 Margaret L. Kripke Legend Award for Promotion of Women in Medicine and Cancer Research, bestowed by the University of Texas MD Anderson Cancer Center.

1977

Peter Michael Doubilet was inducted as a Fellow in the American College of Radiology in May during a formal convocation ceremony at the ACR annual meeting and chapter leadership conference in Washington, D.C. Peter is a professor of radiology at Harvard Medical School and senior vice chair of radiology at Brigham and Women's Hospital in Boston. He is a member of the Society of Radiologists in Ultrasound and the American Institute of Ultrasound in Medicine.

Janet Roen, who practices ophthalmology and oculoplastic surgery in Manhattan, has been promoted to clinical professor of ophthalmology at New York Medical College/New York Eye and Ear Infirmary.

1978

See Alumni in Print to read about a book by Mindy Fullilove. Mindy is professor of psychiatry at P&S and professor of sociomedical sciences at the Mailman School of Public Health.

Andrew M. Kaunitz, professor and associate chair in the Department of Obstetrics & Gynecology at the University of Florida College of Medicine-Jacksonville, received the Robert C. Nuss Researcher/Scholar of the Year Award at the University of Florida in May.

Andrew M. Kaunitz'78

1979

Peter E. Sybert was elected in May 2013 as president of the California Society of Anesthesiologists.

1980

See Alumni in Print to read about a book by Alan Engler. Alan is clinical assistant professor of plastic surgery at the Albert Einstein College of Medicine in New York. His latest book is his fifth book and his first novel. He and his wife, Danielle Engler'80, live in

Alan Engler'80

Husband and Wife Named to Best Doctors List

Carrie Ruzal-Shapiro'82 and Peter Shapiro'80

A Columbia husband and wife, both P&S graduates, were both named to New York magazine's 2013 Best Doctors list. Peter Shapiro'80 and Carrie Ruzal-Shapiro'82 have been included in the list individually in previous years, but this is the first time they have been honored in the same year.

The couple met while undergraduates at Princeton, as dishwashers in the same dining hall. Peter entered P&S in 1976, and Carrie followed suit in 1978. Both completed residencies at NYP/Columbia—Peter in psychiatry in 1984 and Carrie in radiology in 1988.

Peter is a consultation-liaison psychiatrist who does psychiatric evaluations for medical patients suffering from physical illness. Ironically, it was Carrie's psychiatry clerkship that led to Peter's career choice: While in medical school, she didn't particularly enjoy her psychiatry rotation, but Peter, a medical intern at the time, enjoyed reading her homework assignments so much that he decided to switch from medicine to psychiatry.

Carrie, a Brooklyn native whose parents were immigrants, decided at a young age to become a doctor. She began as a pediatrician before specializing in radiology, for which she was board certified in 1988. She has been at Columbia for 35 years, first as a medical student, then professor, past director of the radiology residency program, and chief of pediatric radiology. She was awarded the distinguished teacher award by the Class of 2002.

Hastings-on-Hudson, NY. Danielle, a dermatologist, is a member of the P&S Club Advisory Board. Their son, Jeff, is a 2005 graduate of Columbia College, and their son, Steve, is a member of the Class of 2015 at the School for International and Public Affairs at Columbia University.

1984

Barbara L. Milrod, professor of psychiatry at Weill Cornell Medical College and associate professor of psychiatry at Mount Sinai School of Medicine and P&S, received the first juried Leon Kupferstein Memorial Award for Innovation in Psychoanalysis from the New York Psychoanalytic Society & Institute. She also maintains a private practice in Manhattan; she specializes in panic disorder and agoraphobia with expertise in anxiety and mood disorders in adults and children. She has dedicated her career to providing scientific, reliably reproducible evidence demonstrating the efficacy and utility of psychoanalytic forms of treatment. To this end, she became expert in psychotherapy research, specifically in clinical trials and outcome studies. In collaboration with colleagues, Dr. Milrod wrote the first psychoanalytic psychotherapy manual for an Axis I anxiety disorder, panic disorder. After receiving her degree from P&S, Dr. Milrod completed her residency in general psychiatry and a fellowship in child and adolescent psychiatry at the Payne Whitney Clinic in Manhattan.

Maria A. Oquendo received the 2013 American Foundation for Suicide Prevention Research Award from the American Foundation for Suicide Prevention. The annual award recognizes the person who has made major contributions to research about suicidal behavior.

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- Spring/Summer 2013 and Fall 2013 issues of e-News About and For Alumni
- Reunion Weekend 2013
- Alumni Association Activities

1985

Jessica Kandel is now professor of surgery, section chief of pediatric surgery, and surgeon-in-chief at the University of Chicago Medicine Comer Children's Hospital. Before joining the University of Chicago, Jessica had been at P&S since 1995, most recently as the R. Peter Altman Professor of Surgery and Pediatrics in the Institute for Cancer Genetics and co-director of the pediatric tumor biology laboratory. While at Columbia she also served as interim chief of the pediatric surgery division and was attending surgeon at Morgan Stanley Children's Hospital of NewYork-Presbyterian and a member of the

Alumnus Helps Found World Association of Plastic Surgeons of Chinese Descent

David T.W. Chiu'73

David T.W. Chiu'73, professor of plastic surgery and neurosurgery at New York University School of Medicine and a pioneering innovator in peripheral nerve surgery, was one of the co-founders of the World Association for Plastic Surgeons of Chinese Descent at the Third World Congress for Plastic Surgeons of Chinese Descent in Xi'an, China, in October 2012.

The first congress was held in 2008 in Beijing and the second in 2010 in Taiwan, and Dr. Chiu was also a prime mover and presenter at both. The next congress will be held in 2014 in Hong Kong. The majority of the members, many of whom have made outstanding contributions in microsurgery, tissue engineering, and other areas of plastic surgery research, are of Chinese ancestry and reside all over the globe.

Dr. Chiu, chair of the association's provisional board of directors, is internationally renowned for his autologous vein nerve conduit, which first proved that nerve gaps can be bridged for nerve repair. A native of China, Dr. Chiu moved with his family first to Hong Kong then to the United States. Cognizant of cultural obstacles faced by individuals of Chinese ancestry in other countries, including longstanding social prejudice in the United States, he credits the success of Chinese doctors to, among other factors, "Confucian principles of learning, with an emphasis on self-enlightenment, teaching, knowledge, and a search for perfection. It is our wish," he says, "that this association will not only promote the knowledge and know-how of its membership but also, and most importantly, offer an opportunity to share with and learn from plastic surgeons of all nations."

Another member of the association, June Wu'96, assistant professor of surgery at P&S, best known for her work in pediatric plastic and craniofacial surgery, trained with Dr. Chiu. She praised her mentor for his surgical and pedagogical skills. "Other synthetic nerve conduits still used today are conceptually derived from his work," she says, adding: "I wouldn't be a plastic surgeon today if not for him." She salutes the new association as "a vibrant international forum for the exchange of ideas."

— Peter Wortsman

surgical staffs at Columbia University Medical Center, the Komansky Center for Children's Health at Weill Cornell Medical Center, and New York Hospital Queens.

1986

Elyse Seidner-Joseph received rabbinic ordination in January 2013. Elyse is the founder and spiritual leader of Makom Kadosh: The Jewish Fellowship of Chester County (TheJFCC.com). She and Kenny live in West Chester, Pa., and celebrated 30 years of marriage in August.

1987

Thomas H. Lee was named secretary of the American Orthopaedic Foot & Ankle Society. He will focus his two-year term on supporting the global mission of the 2,027-member society. He is a physician at the Orthopedic Foot & Ankle Center in Westerville, Ohio.

1989

Montefiore Medical Center and Albert Einstein College of Medicine of Yeshiva University named Matthew N. Bartels chair of the Rehabilitation and Physical Medicine Department at Montefiore and professor and chair of physical medicine and rehabilitation at Einstein. He was recruited from Columbia, where he served as director of cardiopulmonary rehabilitation and founder and director of the human performance laboratory.

1991

Shari Hall, staff anesthesiologist at the Walter Reed National Military Medical Center, is also a recording artist and singer/songwriter. She released her first album, called "Perfect Love," in June 2013. All proceeds from the single "Come Back 2 Me" will be donated to the USO to benefit military members and their families. The album is available at www.sharihall.com and iTunes. Shari, a former president of the P&S Club and active participant in the Bard Hall Players and the Coffeehouse Cabaret, always had a great passion for the arts and

Shari Hall'91

enjoys living a full life as a mother, a physician, and a musician.

1994

Randall Owen, associate professor of surgery at Mount Sinai School of Medicine in New York, attended the P&S Club's Columbia Christian Fellowship in October to discuss his interest in medical and other missions. He has overseen a rehousing effort in Haiti since the 2010 earthquake and participated in mission trips to the Philippines, Kenya, Romania, Pakistan, and Gabon. He is past president of the New York City Council of the Christian Medical and Dental Associations. He also serves as an attending surgeon at St. John's Riverdale Hospital, Montefiore Medical Center, and North Bronx Health Network.

Woosup Park has joined the faculty of the Cleveland Clinic and Foundation in the Department of Vascular Surgery.

Woosup Park'94

1998

See Alumni in Print to read about a book co-authored by Josh Gibson. Josh is assistant clinical professor of psychiatry at the University of California, San Francisco, where his clinical and educational work focuses on the neurobiology of relationships. After graduating from P&S, he completed a residency in psychiatry at UCSF and received the Alexander Simon Award for teaching. He also received the AMA Foundation Leadership Award and was selected for a fellowship with the Group for Advancement of Psychiatry, a psychiatric think-tank that published the book he co-authored, "CAREERS: A Brainwise Guide to Finding Fulfillment at Work." Josh had a career in business before medicine, working for nearly five years in process re-engineering, organization development, and education design and delivery as a consultant to Fortune 500 companies in the retail, financial services, and health care industries.

Josh Gibson'98

2008

T. Bram Welch-Horan moved to Houston for a fellowship in pediatric emergency medicine at Texas Children's Hospital/Baylor College of Medicine. His second son, Oliver, was born in September 2013. One of his co-fellows is Sarah Meskill'09.

2009

See Alumni in Print to read about the latest book by Jacob M. Appel. Jacob, who has multiple degrees in writing, philosophy, and law in addition to medicine, is a psychiatrist at Mount Sinai. A licensed New York City sightseeing guide, Jacob has won multiple awards for his writing.

Jacob M. Appel'09

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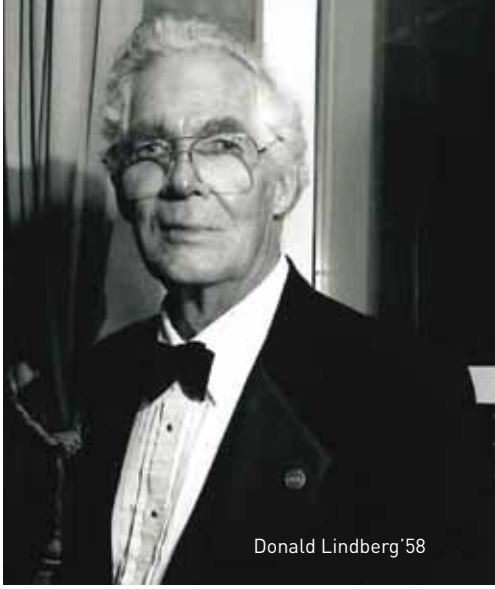
ALUMNI PROFILE

Donald Lindberg'58, Christian Rose'13:
Inaugural Award Honors Medical Informatics Leader

By Joseph Neighbor


Donald Lindberg'58

Christian Rose'13, recipient of the inaugural Donald A.B. Lindberg Award for Excellence in Biomedical Informatics, given at graduation, has always enjoyed pondering the future.

"I was always thinking about space travel and airplanes and cars and submarines," he says. "But, somewhere deep inside me, I have always loved helping people. The idea of being a physician has always been there."

So it was natural that he sought a career that combines the scientist's fascination with technology with the qualities of empathy and care that define the practice of medicine. After graduating from Vassar College in 2007, Dr. Rose entered the class of 2013 at P&S. He was immediately drawn to biomedical informatics, a relatively young, interdisciplinary field at the nexus of health care, biology, clinical informatics, and computer and information sciences.

Much of the groundwork for biomedical informatics was laid by **Donald Lindberg'58**, the inventor of the first computer-based laboratory system and author of three books and more than 200 articles and reports. In a professional career now in its fifth decade, he has pioneered the use of computers in medicine, first as a faculty member and director of the Diagnostic Microbiology Laboratory at the University of Missouri and later as director of the National Library of Medicine, the world's most extensive biomedical library.

The invention of the computer-based laboratory system in the early 60s was, like many innovations, the product of necessity. Until then, medical records were handwritten, which meant "misspellings, late reporting, and occasionally inadvertent errors," says Dr. Lindberg. "I was a newcomer to computing, but it was immediately obvious that important quality control measures—especially in the clinical chemistry lab—could be automatically implemented by the computer system." This eventually led to what is now known as the electronic patient record.

Soon thereafter, Dr. Lindberg, with the help of a physics graduate student, developed a computer capable of running mathematical models of bacterial growth. This led to a revelation, ending "a period of great anxiety," says Dr. Lindberg. "I was torn between my duties supervising the clinical labs of the hospital and my duties conducting research in my NIH-supported research lab. One day in 1960, it dawned on me that computer-based information systems spelled the answer in both cases."

For his work, Dr. Lindberg has been lauded as one of the world's preeminent authorities on medical informatics. He is a member of the Institute of Medicine of the National Academy of Sciences. He was awarded the Surgeon General's Medallion of the U.S. Public Health Service, among other honors, and appointed by President George H.W. Bush to the post of director of the National Coordination Office for High Performance Computing and Communications.

Under his stewardship, the National Library of Medicine was transformed into a cutting-edge repository for medical information. Numerous important changes over the past three decades include Medline, the largest collection of medical information in the world, and the Unified Medical Language System, an electronic thesaurus of medical terminology. The library was instrumental in the Human Genome Project, organizing, storing, and preserving the immense amount of data the project produced.

These innovations have transformed the practice of medicine—and science in general. Modern genetics and genomics simply could not exist without scientific computing systems.

At P&S, biomedical informatics researchers work in areas as diverse as computer simulations of biological systems, electronic health records, telemedicine, natural language processing, data mining, machine learning, and intelligent systems. Today, physicians use computers to diagnose illness, make treatment decisions, and monitor drug interactions.

"Technology is no longer just a tool that some clinicians use," says Dr. Rose. "With electronic health records and big data projects, medical technologies are part and parcel of the practice of medicine, and informatics is at the core."

Though omnipresent, biomedical informatics is poorly understood by the general public. "We've had a branding problem," says Herbert Chase, MD, professor of clinical medicine (in biomedical informatics). "People didn't know what we do. How do you get students and faculty interested in a new discipline?"

To address this issue, the Department of Biomedical Informatics created the Lindberg Award, which simultaneously honors Dr. Lindberg, recognizes innovators of the future, and raises awareness for the discipline. Robert Sideli, MD, associate professor of biomedical informatics and CUMC chief information officer, chaired the award's selection committee.

Dr. Rose received the award in part for his imagination and zeal in promoting biomedical informatics. In 2009, with the help of a few fellow tech enthusiasts, he founded the Innovative Medicine Interest Group, with the sponsorship of Department of Biomedical Informatics professors Dr. Chase and **George Hripcsak'85**. The focus, Dr. Rose says, was "not

the medicine that has become regular practice but the medicine that *will become* regular practice." In April 2013, the group hosted a TEDMED conference, which featured presentations by eight Columbia University faculty members and the live streaming of talks given at the national TEDMED conference in Washington, D.C.

"I knew that people were interested," Dr. Rose says, "but it's amazing how it grew. In only a few short years, we went from one to five to 20 students doing research and presenting at conferences in informatics."

After graduating in May 2013, Dr. Rose started a residency at the University of California, San Francisco, where he is applying his knowledge of informatics to the emergency room, "an area of medicine that's like the wild west."

"In terms of its need for up-to-the-minute information, the emergency room is king. We need to be able to visualize a patient's health status, past conditions, and current trajectory in only a few minutes." By devising new ways of interpreting data, as well as refining currently existing technologies such as alerting systems, medical records, and interaction checking, Dr. Rose hopes to streamline the way emergency physicians work.

Popular culture abounds with depictions of dystopian futures where emotionless robots rule the world with exacting efficiency. "Students always ask me, 'Is Watson going to take my job?'" Dr. Chase says, referring to the supercomputer contestant on "Jeopardy!" who in 2011 trounced former champions Ken Jennings and Brad Rutter.

A computer can do many things better than we can, says Dr. Chase. It can screen for drug interactions; it can summarize the boundless data of a patient's medical history, prioritizing to ensure that what's most important is seen by the doctor; it can overcome human biases. By incorporating what the computer offers, doctors can better diagnose illnesses and predict the effectiveness of treatments.

The swift advances in computer technology, says Dr. Chase, will lead to a re-evaluation of the role of the physician. The doctor of the future will function more as an intermediary between computers and patients, synthesizing the information provided by machines and tailoring it to the needs of the individual patient.

"The next big thing in medical informatics, to me, will be engaging the patient in a sensible way," says Dr. Rose. "No longer does the power of diagnosis and treatment lie solely in the hands of the physician. Helping patients to become advocates for their own health in their daily life is something that I think will change the face of medicine—and it's within our power to bring this about."

Biomedical informatics frees the individual physician from the burden of being expected to know everything so physicians can return to 'what we did well a hundred years ago: caring for patients.'

Paradoxically, this brave new world harkens to the profession's past. "A hundred years ago, we spent a lot of time comforting people," Dr. Chase says. Treatment was often a shot in the dark; doctors knew that certain methods and medicines worked, but not why. In the 20th century, the application of the scientific method to medicine radically changed the physician's role: Physicians became expected to be encyclopedias of ailments and treatments, abreast of all the latest discoveries. Gradually, the interpersonal dimension of medicine—the caregiving—became less important, as patients demanded diagnoses and cures.

Biomedical informatics, by pooling the collective expertise and wisdom of the medical community, frees the individual physician from the burden of being expected to know everything. Physicians can return to "what we did well a hundred years ago: caring for patients."

So though Watson may be able to read 65 million pages per second, aspiring physicians need not fret about being replaced by robots. "Artificial intelligence will never take the place of doctors," says Dr. Chase. "What Watson can do is very narrow—it can read and make correlations. But it doesn't have the ability to get inside a patient's mind. The physician's primary role is to care for patients. As we know, medicine is both a science and an art."

Dr. Rose agrees: "Being a physician is so much more than just making a diagnosis or knowing drug interactions—it's caring, treating, and empathizing. Computers are only as good as the data put into them. At the end of the day, we are the ones who work with the patients and help them get where they want to go."

Christian Rose'13

ERIKA ROSE

ALUMNI PROFILE

Karen Hein:
Pioneer in Adolescent Medicine Committed to Health and Well-Being for All

By Peter Wortsman

In 2003, upon stepping down as president of the William T. Grant Foundation and moving to Vermont, "in order to be true to what I was trying to do as a doctor and a human being," Karen Hein'70 cited the words of Mahatma Gandhi: "My life is my message." It's a principle she has been applying all her life.

She brought her newborn baby to introduce him to her incarcerated young patients at the Spofford Juvenile Center, an "infamous" correctional facility for adolescents in the Bronx. She hauled a spinning wheel into her office in the U.S. Senate, where she served as a health policy fellow on the professional staff of the Senate Finance Committee, to help her unwind.

Her controversial campaign to buck stigmas, promote safe sex, and make condoms available to New York City school kids at the height of the HIV/AIDS epidemic drew death threats and helped save lives. Her widely read book "AIDS: Trading Fears For Facts, A Guide for Young People," included illustrated instructions on how to use a condom.

She is equally at home in the company of her cashmere goats in rural Vermont and with her fellow members of the Green Mountain Care Board, which was appointed by Vermont Gov. Peter Shumlin to fulfill the state's mandate to provide all Vermonters with health coverage.

On a morning in early March 2013, under a freshly fallen coat of snow, *Columbia Medicine* interviewed Dr. Hein at her home in Vermont.

A Career Outside the Comfort Zone

Her father was a Long Island family practitioner who served as the first chief of staff at North Shore Hospital. Her mother audited medical school classes but ultimately, given the social pressures of the time, gave up her dream of pursuing medicine to raise a family. "I think I became a doctor for my mother, who didn't get to be one," says Dr. Hein.

Medicine called out to her early on. "The privilege of being a doctor had nothing to do with status or salary. For me," she says, "it was all about being present at the most meaningful moments of a person's life."

As a child she spent a lot of time in her father's office, intrigued by, among other things, the fetus in a jar, the anatomical models, and books on birth control. As a camp counselor, at age 17, she took it upon herself to have frank and open discussions about sex and contraception with her young charges. "I have always tried to look at things from a young person's perspective. My experience as an empowered young person in the 1960s continues to be my motivation now that I am in my 60s."

After completing what was at the time a two-year program at Dartmouth Medical School, she transferred to P&S, where she felt warmly welcomed by her classmates. A fourth year sub-internship at a rural bush hospital in Liberia, an experience made possible by the legendary P&S professor of parasitology and tropical medicine Dr. Harold Brown, proved "the best way to move from being a student to being a doctor." It also launched her on a career path outside her comfort zone.

"Generally, I'd say, I went into what I'd call 'vacuum areas.' I have always gone not where there was the least resistance but where there was need, where things weren't formed and rigid yet."

As a young student activist affiliated with the Student Health Organization, she helped care for abandoned babies at Lincoln Hospital in the South Bronx, the subject of her first publication, "Boarder Babies at Lincoln Hospital." Following a fellowship in adolescent medicine at Montefiore Hospital, she took her first job out of medical school as medical director of Spofford Juvenile Center, a facility for adolescents in trouble with the law. "You could say a prison for kids is not exactly a creative, open space," she says, "but we were forced to be creative in figuring out how to give good health care to the kids in that prison." Establishing a team approach, with the help of social workers, an ethicist/lawyer, and nurses, she and her colleagues would surprise both the guards and the young detainees who sometimes came into the infirmary completely out of control, by grabbing the kid by the arm: "Oh, you've got a boo boo on your hand," allowing him to de-escalate and just be a kid. "That's how we handled 'New York's most violent.' Prison health was a vacuum area in terms of people on the outside thinking about or worrying about the kids on the inside. But I found it absolutely compelling."

At Spofford, which Dr. Hein characterized as "a sentinel site for emerging issues in youth," among other kids invisible to society at large, she saw a severely ill 15-year-old boy with huge lymph nodes. A clinical mystery to the dermatologist who diagnosed him with a rare cancer, mycosis fungoides, Dr. Hein believes he was one of the nation's first adolescents to come down with an as yet unnamed disease subsequently called HIV/AIDS. "While others were focusing on where the HIV epidemic had surfaced," she says, "we were looking ahead to where it was going."

First Comprehensive Adolescent HIV/AIDS Program in the Nation

In 1987, with the help of her husband, Dr. Ralph Dell, now professor emeritus of pediatrics at P&S, who developed mathematical models to

predict how HIV was bound to be present in the adolescent population, Dr. Hein drafted a paper, "AIDS in Adolescents, a Rationale for Concern," on the basis of which she applied for and obtained a $1 million grant from the Centers for Disease Control and Prevention to establish the Adolescent Risk Reduction Program at Montefiore Hospital, the first comprehensive adolescent HIV/AIDS program in the country, of which she was founding director. Given the stigma, fear, and denial associated with the disease and those it struck, and not wanting to scare away teens or their parents, she decided not to include the word AIDS in the name, REP (Risk Evaluation Program). "We liked the kids to have cards they could carry around and didn't want them to be stigmatized by a card with the dreaded term AIDS on it." The program included HIV/AIDS education, clinical care, and clinical trials.

Initially derided by some colleagues and members of the hospital administration as the director of "The Emperor's New Clothes Clinic," Dr. Hein managed to attract the attention of U.S. Surgeon General Antonia Novello, who attended the ribbon cutting for the new facility. Her prognosis: "Hmmm, unintended pregnancy, wonder how many of the kids are gonna be infected with HIV!" proved right on the mark.

Teaming Up with Teens to Get the Message Out

Rejecting the traditional notion of the doctor-patient relationship as a one-way street, in which the doctor spoon-feeds medicine and wisdom and the patient just swallows and obeys, Dr. Hein insists: "I always got my marching orders from my patients."

Among her many patients was one young woman, Krista Black, who had been infected with HIV/AIDS by a boyfriend with hemophilia when she was 16. She contacted Dr. Hein from Ohio and became a powerful partner in de-stigmatizing the disease and promoting healthy practices. "Undoubtedly, the adult medical team viewed Krista as a problem patient," Dr. Hein recalled in a chapter in a volume about pioneers in adolescent health and development (in press). "To them she was moody, difficult, hard to reach… a problem. What I heard on the telephone was a bright, determined young woman who was calling halfway across the country to find a doctor who would understand what she was going through."

Dr. Hein listened. They worked together as a team for the next five years, addressing Krista's concerns and those of a generation. "Krista taught me that young people are the best spokespeople for issues facing adolescents. She taught me that answers to complex questions about illness, death, and life are best approached through teamwork, and that the team needs to include the person, or people, most affected." Soon after they got to know each other, she began to include Krista in her professional presentations, public appearances, and media interviews. They shared the microphone. The eloquent young woman's pressing questions ultimately became the basis for research questions the doctor and her team began to systematically pose to their patients. Krista died at age 22. Dr. Hein is still stirred when she speaks of her. "She dedicated her short, meaningful life to becoming an HIV/AIDS educator, giving a voice and a face to the wave of the epidemic that wasn't fully recognized until she died."

Then in the early 1990s, with the support of NYC Schools Chancellor Joe Fernandez, Dr. Hein helped launch a push to promote HIV/AIDS education and comprehensive sexuality education, including condom availability, among the young. Considerable uproar and death threats notwithstanding, Chancellor Fernandez, Dr. Hein, and others on the AIDS Curriculum Advisory Committee together crafted an HIV/AIDS curriculum for kindergarten through 12th grade, the most controversial part of which was raising awareness and making condoms easily available to all 450,000 high school students in NYC public high schools. "We took it, as I always have: If you want to do a bold social experiment you want to learn from it." The results were studied and written up in the Journal of the American Medical Association. "Researchers compared New York City schools with Chicago schools that had an AIDS curriculum but no condom availability. And lo and behold, New York kids used condoms more regularly."

'I realized I don't belong only in the corridors of an academic health center.'

Dr. Hein remembers sharing her enthusiasm at having succeeded in promoting condom availability with an endocrinologist on staff at Montefiore, who merely shrugged. "That's when I realized I don't belong only in the corridors of an academic health center."

Reaching out to the community at large, she addressed the concerns and questions of a generation at risk in their own language through "AIDS: Trading Fears for Facts, A Guide for Young People," published in 1989 by Consumers Union, co-authored with Theresa Foy Digeronimo, a book that went on to sell more than 100,000 copies in four languages, including two versions in Spanish. With an eye-catching cover image by the artist Keith Haring, the book dispelled false gossip and insidious rumors and answered questions on the minds of many kids, such as, "Can I get HIV by sitting on the toilet in a public bathroom?" It featured a diagram of how to put on a condom over an erect penis and included a list of AIDS hotline numbers state by state and a glossary of terms

Karen Hein'70 with her herd of cashmere goats

PHOTOS BY JOHN DOUGLAS

with simple straightforward definitions. The book also featured profiles of young people living with AIDS as well as noninfected kids who chose to play an active role in responding to the epidemic.

Not long after publication of the book, basketball star Earvin "Magic" Johnson made headlines with his public announcement that he had AIDS. His associates contacted Dr. Hein and she served as a member of the scientific advisory board of the foundation Mr. Johnson created.

Promoting Change, from Adolescent Medicine to Health Policy

Throughout her career, Dr. Hein has fought to combat negative societal perceptions of young people as a danger or a threat. To her it's a vicious circle. "Attitude drives behavior, which, in turn, drives how resources are allocated and how health is regained or maintained." In America, she points out, "We're very positive about the military and about the Olympics, two institutions in which everybody admires young people, but in the day-to-day reality it's still obviously an image issue, especially for kids in racial minorities."

In 1993 she applied for and was awarded a Robert Wood Johnson Health Policy Fellowship and took a sabbatical leave from Montefiore to serve on the professional staff of the U.S. Senate Finance Committee, chaired by New York Sen. Daniel Patrick Moynihan. She focused on assessing and recommending health insurance benefits packages, among other matters, clarifying definitions of "medically necessary care" and "medically appropriate care," and pressing the issue of mental health and substance abuse parity coverage. "The Clintons were busy, as you know, trying to achieve health care reform through the White House," she says, "but it's Congress that writes the laws."

Working for hours on end, month after month, while others resorted to the treadmill, she decided to "bring sanity into my life" by setting up a spinning wheel in her Senate office.

While she admits to considerable frustration that the health reforms for which she worked so hard did not pass into law at the time, the hard work paid off years later. "I am finishing the job 17 years later as a member of the Green Mountain Board. So you just never know in your life."

Following the conclusion of her fellowship, Dr. Hein got what she refers to, tongue in cheek, as "a case of Potomac Fever. I really wanted to stay in Washington and help foster change." Considering various opportunities, she accepted the position as executive officer of the Institute of Medicine at the National Academies. Founded by President Lincoln, the National Academies, which includes the National Academy of Sciences and the Institute of Medicine, produces and disseminates informed policy reports to Congress. Among her innovations at the helm of the IOM, "I really pushed to produce one-page summaries of 500-page reports, so that Capitol Hill staffers would actually read them and not just file them away." Under the presidency of Ken Shine, MD, and her direction as executive officer, the Institute wrote the seminal report, "To Err is Human," documenting the daunting statistic that medical errors account for some 98,000 deaths a year. The report has since spawned a push for medical checklists, among other institutional safeguards. Other pivotal reports produced under her watch included "The Future of Public Health," a series on Gulf War Syndrome, and "The New Dietary Allowances for Nutritional Requirements."

COURTESY OF KAREN HEIN '70

Karen Hein'70 with Hillary Clinton at the White House Conference on Teenagers

After three and a half years directing the work of the IOM, she was recruited to serve as president of the William T. Grant Foundation, a charitable organization dedicated to "using research to improve the lives of young people." She relished the responsibility of being able to direct millions of dollars to help shape research on positive youth development. Her goal as president was not just to fund research, but also to try to affect the societal view of young people. Among notable efforts under her tenure, the foundation helped fund the White House "Conference on Teenagers: Raising Resourceful and Responsible Youth," chaired by then First Lady Hillary Clinton.

Getting Back to Basics

Upon stepping down from the presidency of the William T. Grant Foundation, Dr. Hein took a long, hard look at her life and decided she wanted to make some changes. Instead of taking on a new position, she resolved to give up the trappings, the salary, the title, to get back to what brought her to medicine to begin with. Years ago she and her husband had bought an old farmhouse in Vermont and completed a major renovation in 1989. Much of the expert carpentry in the house had been done by Dr. Dell. Inspired by many trips to Mongolia and their shared fondness for Himalayan culture, they also built a yurt out back. And on a great loom upstairs Dr. Hein wove wonders, including pieces of clothing and imaginative works of art. Their children were all grown up and independent. But aside from brief family vacation breaks, they had never actually lived in the house. The time was right, they thought, to call Vermont home. Among other factors in their decision was the onset in Dr. Dell of early stage Alzheimer's disease and their desire to spend more time together. A calling card they had designed shows the two of

them levitating together, two human halves of the same whole hovering in thin air.

And then there was the herd of long-haired American cashmere goats, a more recent addition to the extended Dell-Hein clan. Winter and summer, Dr. Hein tends to their needs and satisfies her own need to be closer to nature. "For me," she says, "they're a funny kind of portal, a connection between nature at large and my life among people."

Which is not to suggest that she bid humanity farewell, only that she altered the conditions of her commitment. She continues to serve as an active board member on various international NGOs. Among many other projects, she became involved with a small group of health professionals concerned about the lack of adequate training of individuals who rush to help in troubled areas in times of crisis, sometimes doing more damage than good. The group came up with a set of core competencies for humanitarian assistance, a document that various international aid organizations are signing. The move to Vermont also gave Dr. Hein the opportunity to participate in an important health care initiative and complete the work she had begun as a health policy fellow attached to the Senate Finance Committee.

The Green Mountain Care Board

In May 2011 the Vermont Legislature passed and the Vermont governor signed Act 48, a landmark law that set out "to create a health care system in which all residents receive coverage from a single source, with all coverage offered equitably and health care costs contained by systematic change in the way providers of health care are compensated for their services." Dr. Hein was named by Gov. Shumlin as one of five members of the Green Mountain Care Board, a body with regulatory authority to make binding decisions relating to the state's health care system in an entirely transparent process.

'Being a physician has been the way I have realized my adolescent desire to be a part of change in the country and the world.'

"System" is the key word for Dr. Hein. "It has to be a system so that all the players and parts, the 14 hospitals, the federally qualified health centers, independent practices, rural clinics, and small critical access centers, fit and function together. What's really exciting about Vermont health care reform is that we're looking at all those moving parts and trying to get our arms around all of it, so that it isn't just a bunch of moving cogs but adds up to an integrated health care system." In addition, she stresses, "For it to work, the people of Vermont have to feel a part of the system. They have to feel empowered enough to be sure they are getting from the system what they think is important." And finally, she adds, "the system has to be affordable, affordable to individuals, to families, and to the state."

Dr. Hein also emphasizes the need to take into account various social determinants of health, including behavior, environment, and public health. The board also acknowledges the role of nutritious school lunch and sex education programs run by the Department of Education, the promotion of bike helmets and the building and upkeep of bike paths established by the Department of Transportation, and meaningful employment and safe working conditions monitored by the Department of Labor, among other factors affecting health. "My priority is the integration of clinical care, public health, and population health," i.e. "the distribution of scarce resources across the population."

The board has accepted a broader definition of health. "Do no harm, is that it? I don't think so. It's not just the absence of disease," Dr. Hein says. "Health also has to do with social, economic, and personal well-being. And that's what I'm hoping our system can promote."

Despite the negative perception promoted by outspoken and well-funded opponents of the law—"that we've tried this before and it never worked, that it's just too complicated to tackle, with too much money at stake"—Dr. Hein remains optimistic that the board will surmount such attitudinal barriers and come up with a workable model. "Vermonters are very reasonable and we do work across the aisles. We can and will engage people around issues that they really care about. Most people do not want to end up in an ICU with a million tubes and no say in the matter. We'll just naturally end up saving money and having Vermonters feel supported and in charge, not of living or dying, but of how they live and how they can feel supported when they are dying.

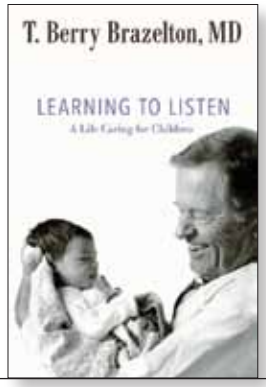
"There is no one single reason, no one single villain or flaw" in the present American health care system, Dr. Hein says. "But the system has rewarded volume. Doctors and hospitals are rewarded on the basis of piecework." While the managed care model was "all about saving money," the Vermont model "is about improving health and saving money."

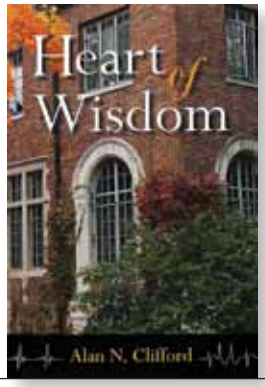
And though she hopes that Vermont may influence health care reform elsewhere in the country, she is averse to the notion that change should necessarily start at the state level. "I'm very dismayed by the way people refer to Vermont. Oh, it's just Vermont! It's such a small state! It's such a rural state! It's such a politically aligned state! It's as if these were reasons why America can't do the right thing by its people. And I believe it can."

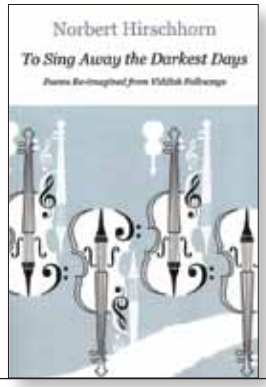
Reflections at the Loom

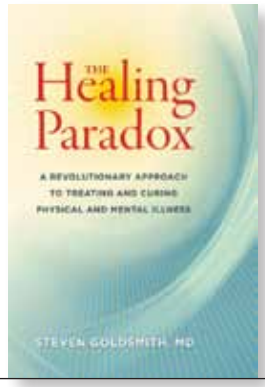
At age 69, she still wakes up at 5 a.m., as she has for most of her career. And when she's not shuttling up to Montpelier for meetings of the Green Mountain Care Board, she takes precious time out at daybreak to knit or sit by her loom, weaving the combed cashmere hair of the herd. In this seeming lull of what she calls "a creative flow state" she manages to disengage the gears and just be. "That's when the big ideas or solutions really take shape.

"I believe that the incentive in American medicine as it is practiced today has gotten way out of whack. What's rewarded is not what I went into medicine to do. What's rewarded is 'fast.' What's rewarded is 'high tech.' What's rewarded are big deals that yield products with a profit. I went into medicine to be able to be there at the important moments in people's lives, to help deliver babies, and sit with people as they die and create a system of support for well-being throughout life. Being a physician has been the way I have realized my adolescent desire to be a part of change in the country and the world."









alumni *in print*

By Bonita Eaton Enochs, Editor

Learning to Listen: A Life Caring for Children

T. Berry Brazelton'43

Da Capo Press, 2013

One of the nation's foremost pediatricians, Dr. Brazelton documents his life and career in this new memoir. The book leads readers through his education at Princeton and Columbia, his experiences aboard a Navy destroyer in WWII, and the revelations that led him to challenge the prevalent view of the time—that newborns were blank slates, disabilities the fault of parents—by an insistence on the idiosyncrasies of children, whom he argued are born with different temperaments and genetic dispositions. His major contributions to the field, the Neonatal Behavioral Assessment Scale, which measures a baby's response to nurturing, and Touchpoints, a map of development for a child's first years, are discussed. The Wall Street Journal calls the book one of "gratitude and joy…[that] traces a lifetime devoted to understanding the critical months in a newborn's life and the bonds between parent and baby in many cultures."

Heart of Wisdom

Alan Clifford (Peter Cohn'62)

Lion Publishers, 2013

Paul Bergman secures a fellowship to study at the research facility of Leo Miller, a renowned cardiologist and survivor of the Bataan Death March. When Dr. Miller declines an award from the Japanese Medical Society—and in doing so forfeits an accompanying grant—he becomes embroiled in a controversy that threatens his career and tars the image of the university where he is a faculty member. The tale, written under Dr. Cohn's pen name, blends the ethics of medicine with the harrowing legacy of WWII. Publisher's Weekly called "Heart of Wisdom" "a thought-provoking read."

To Sing Away the Darkest Days. Poems Re-Imagined from Yiddish Folksongs

Norbert Hirschhorn'62

Holland Park Press, 2013

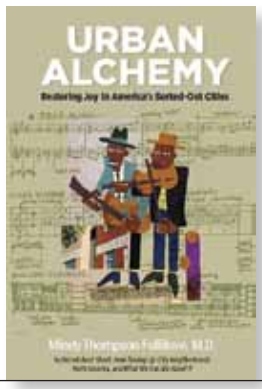
Dr. Hirschhorn's collection of poems, "To Sing Away the Darkest Days," tells the story of a Jew in the Diaspora, using as inspirational material more than a thousand Yiddish folksongs. The songs were culled from dozens of sources—archives, CDs, internet collections—over the course of five years and represent a herculean effort to trace his own personal history while reviving his own links to Yiddish culture. Accompanying the poems is a bounty of documentation of the songs on which they are based, including the transliterated Yiddish texts, literal English translations, audio and video links, and historical information.

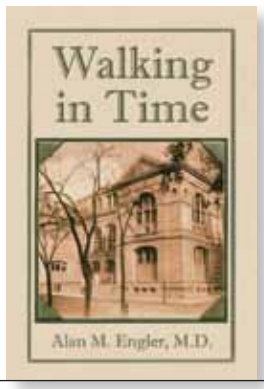
The Healing Paradox: A Revolutionary Approach to Treating and Curing Physical and Mental Illness

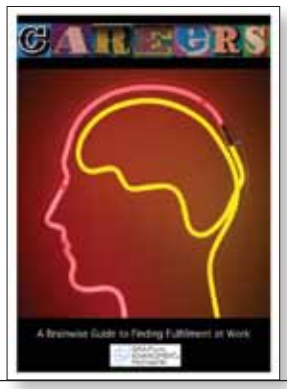
Steven Goldsmith'69

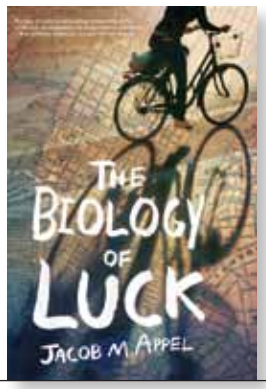
North Atlantic Books, 2013

In "The Healing Paradox," Dr. Goldsmith uses case studies and four decades of experience to propose a counterintuitive method of treating illness: Use the ailment against itself. His argument challenges the common approach of Western medicine—that disease is something to be squelched by all means necessary—which, he claims, leads to temporary solutions at best and a bevy of negative side effects at worst. We should embrace the causes of illness, he argues, and use them to achieve a cure. To undergird this assertion he provides a wealth of familiar examples: radiation, which can both cause cancer and treat it; vaccines, which provide immunity to disease by exposing us to it; and Ritalin, which is prescribed to treat attention deficit hyperactivity disorder, though it is a stimulant.









Urban Alchemy: Restoring Joy in America's Sorted-Out Cities

Mindy Fullilove'78

New Village Press, 2013

Dr. Fullilove explores the ways our health is affected by the neighborhood in which we live. In "Urban Alchemy" she asks whether segregated neighborhoods beget public health problems and investigates possible remedies. By observing urbanists who were doing work directed at "unsorting the city," she developed a taxonomy of nine "elements of urban restoration" the efforts had in common, elements she believes are applicable to all U.S. cities.

Walking in Time

Alan M. Engler'80

CreateSpace Independent Publishing Platform, 2013

Dr. Engler's novel follows renowned plastic surgeon Thomas Randolph as he saunters through the Upper East Side, leading walking tours that focus on the history and architecture of New York's Gilded Age. While his marriage falls apart and his practice is threatened by an evolving political landscape, Dr. Randolph retreats into the halcyon era of the turn of the century. Straddling the present and the past, Dr. Engler's novel is both an informative guide to the august architecture of the Upper East Side and a tale of personal lives jeopardized by the passage of time. The book mentions real figures from Columbia and Presbyterian Hospital history, hospital founder James Lenox and Columbia surgeon James Markoe, whose father and brother also were prominent Columbia physicians in their time. The book also includes references to the original Presbyterian Hospital on East 70th Street and other hospitals from New York's Gilded Age.

CAREERS: A Brainwise Guide to Finding Fulfillment at Work

Josh Gibson'98

Group for the Advancement of Psychiatry, 2012

A book written by a team of psychiatrists that included Dr. Gibson seeks to understand why some people find satisfaction in their jobs. Mixing practical wisdom with psychological and neurological data, "CAREERS" boils down the secret to seven principles: change, appreciate, risk, explore, endure, reflect, and sacrifice. To illustrate these core behaviors, the authors present case examples, seeking to reframe the concept of a career as a grand endeavor to improve ourselves.

The Biology of Luck

Jacob M. Appel'09

Elephant Rock Books, 2013

Dr. Appel's latest novel is a romantic story within a story, taking place across the five boroughs of New York City. A tour guide, Larry Bloom, fantasizes about an upcoming date with Starshine Hart, a beautiful libertine being courted by two very different men. Her imagined escapades form the basis of the story Bloom is writing, which will culminate in his winning her heart. Bloom's novel is interwoven with the story of the real "dream date," in which he guides his love interest on a tour of the city.

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

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New York, NY 10032

Send inquiries about books to
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in memoriam

FACULTY

Solomon J. Cohen, MD, retired pediatrics faculty member, died Jan. 8, 2013.

Sreedhar Gaddipati, MD, assistant professor of obstetrics & gynecology at CUMC, died Aug. 7, 2013.

Eli S. Goldensohn, MD, professor emeritus of neurology, died March 22, 2013.

M. Richard Koenigsberger, MD, associate professor of clinical neurology and pediatrics (1968-1980) and clinical professor of neurology and pediatrics (2000-2012), died Feb. 17, 2013.

Martin G. Low, PhD, professor of physiology & cellular biophysics, died Aug. 6, 2013.

Bruce R. McDonald, MD, former assistant professor of clinical urology at Bassett, died Feb. 19, 2013.

Eladio Nunez, PhD, professor emeritus of anatomy & cell biology, died Aug. 19, 2013.

William Young, MD, former professor of anesthesiology, died Aug. 1, 2013.

ALUMNI

1938

Jay Tepperman, emeritus professor of experimental medicine at SUNY Upstate Medical University at Syracuse, N.Y., died Dec. 20, 2012. Dr. Tepperman was a recognized authority on biochemical endocrinology. On an alumni questionnaire he recalled, "It was a privilege to be a medical student during a fearful Depression." On the same questionnaire he was proud to report that he had "helped in the education of more than 4,000 physicians and scores of PhD candidates." He and his wife, Helen Murphy Tepperman, PhD, who survives him, operated what he characterized as "a Mom and Pop research lab" for more than 40 years at SUNY Syracuse. He and his wife received honorary degrees from the State University of New York at the Health Science Center at Syracuse. They collaborated on a widely read textbook, "Metabolic and Endocrine Physiology." He is also survived by two daughters, a son, and five grandchildren. Dr. Tepperman was a staunch supporter of P&S.

1939

Jack J. Albom, a retired dermatologist and clinical professor of dermatology at Yale Medical School, died Nov. 12, 2012, at age 99. Following his official retirement he served for many years as a consultant in dermatology at the VA Hospital in Pompano Beach, Fla. Preceded in death by his wife, Miriam, he is survived by two daughters, five grandchildren, and four great-grandchildren.

Stephanie Liem'15

Stephanie Liem, a student just beginning her third year at P&S, died in July 2013 after a sudden and brief illness. Her teachers describe her as a "talented student, committed to the care of all patients, including the underserved, and one who enjoyed helping out her classmates." She was a gifted concert organist who also enjoyed choral singing.

Ms. Liem married Pablo Azar less than a month before her death, and he survives her along with her parents, Lisa and Gie Liem of Haverford, Pa., and her brother, Jasper Liem.

1942

Fay Perry Greene, a retired general physician and surgeon, died Oct. 27, 2012. Dr. Greene served in the U.S. Army Air Force during World War II. After the war he moved to Parkersburg, W.Va., where he pursued a general medical and surgical practice for more than 50 years, often accepting eggs in lieu of payment from grateful but hard-hit patients. Outside of his medical practice, he ran two farms and served as a surgeon for the B&O Railroad, president of the Parkersburg Medical Society, and chief of staff of St. Joseph's Hospital. Dr. Greene also served as a surgical consultant to Trinidad and Tobago, where he had a second home. He also found time to be a teacher, pilot, athlete, and world traveler. Preceded in death by his wife, Genevieve, he is survived by two daughters, a son, eight grandchildren, and six great-grandchildren.

1943D

William Sinclair Jr., a retired pathologist and longtime member of the clinical faculty in the Department of Pathology at Case Western Reserve Medical School, died Jan. 30, 2013, at age 94. Dr. Sinclair served as a medical officer in the U.S. Navy during World War II, participating in the D-Day invasion with the first wave at Omaha Beach in Normandy. He later founded the pathology department laboratory and school of medical technology at Lutheran Medical Center in Cleveland, Ohio, and served as director for 35 years. He taught for many years on the clinical pathology faculty at Case Western Reserve, where he was honored with the 2006 Pillar of Medicine Award. Outside of medicine he belonged to Ski Docs, the Pasteur Society, and the Cleveland Photographic Society. Preceded in death by his first wife, Joan, and a grandson, he is survived by his second wife, Barbara, a daughter, two sons, seven grandchildren, and four stepgrandchildren.

1945

Robert C. Wheeler, a former clinical professor of pediatrics at P&S, died March 30, 2013. He was 93. Dr. Wheeler served in World War II as a lieutenant in the U.S. Navy, participating in early studies of streptomycin as a treatment for tuberculosis. He was affiliated for many years with Greenwich Hospital in Greenwich, Conn., where he served as a member of the staff in the emergency department. Volunteering with Care-Medico, Dr. Wheeler helped re-open


Jay Tepperman'38


Jack J. Alborn'39


Morton C. Creditor'47


Arthur P. Hall'52

the pediatric service of the hospital in Beni Messous, Algeria, which had been damaged during the war, and taught emergency medicine in Java, Indonesia. He was a member of the Sons of the American Revolution. Preceded in death by two daughters, he is survived by a daughter, a son, five grandchildren, and four great-grandchildren.

1946

Harold Gabel, a retired internist who had been a member of the teaching staff at Monmouth Medical Center in Long Branch, N.J., for more than 60 years, died Aug. 12, 2013, 11 days after the death of his wife, Adelaide. He was 90. Dr. Gabel served in the U.S. Army from 1943 to 1950. Following his official retirement from private practice in 2010, he continued to volunteer at the Parker Clinic in Red Bank. He is survived by a daughter, six sons, and 15 grandchildren.

1947

Morton C. Creditor died Dec. 30, 2012. Dr. Creditor served in the U.S. Navy, pursuing his medical studies in uniform during World War II. He taught on the faculty of the University of Kansas School of Medicine and later moved to Chicago, where he served as director of the Illinois Regional Medical Program, then as associate dean of medicine at the University of Illinois with responsibility for leading the development of the Clinical School of Medicine at the University of Illinois at Urbana-Champlain. He was later appointed interim executive dean of the entire university, the school with the largest enrollment in the country. Following a sabbatical year, he returned to found the Geriatrics Medicine Program at the University of Illinois and subsequently returned to the University of Kansas Medical Center, where he founded the Center on Aging. He is survived by his wife, Una, two daughters, two sons, a stepdaughter, and a stepson.

1949

William "Bunky" Wallop, a retired radiologist, died of a brain tumor on June 1, 2013. Dr. Wallop pursued his undergraduate degree at Princeton in the Navy V-12 Program and following graduation from medical school was stationed for two years in Japan with the U.S. Air Force Medical Corps. Dr. Wallop served as a member of the staff in the Department of Radiology at Arundel General Hospital in Annapolis, Md., before starting his own practice. He was a past president of the Maryland Radiology Society. Preceded in death by a son, he is survived by his wife, Rosemary, three daughters, two sons, and 16 grandchildren.

1952

Leonard H. Brandon, a semiretired family practitioner, died June 7, 2013. He was 86. In the course of his career, Dr. Brandon held positions as chief of staff at Oktibbeha County Hospital, president of Prairie Medical Society, and member of the board of trustees of the Mississippi State Medical Association. In 2004 he was saluted as Family Physician of the Year by the Mississippi Academy of Family Physicians, of which he had previously served a term as president. He is survived by his wife, Rachel, a daughter, three sons, six grandchildren, and two great-grandchildren.

Arthur P. Hall, a retired internist and rheumatologist and former associate clinical professor of medicine at Harvard Medical School, died Feb. 19, 2013. Dr. Hall served in the U.S. Army Air Corps. He practiced internal medicine and rheumatology for more than a half century as a member of the staff at Brigham and Women's Hospital in Boston. Preceded in death by his wife, Martha, he is survived by two daughters, two sons, six grandchildren, and one great-grandchild.

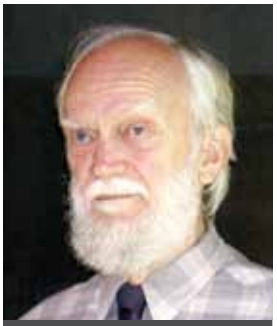
Herbert C. Haynes, a retired psychiatrist known by his classmates as "Pat," died Sept. 9, 2013, at age 93. During World War II he worked at the Johns Hopkins Applied Physics Lab on the development of the "proximity fuze," a fuse that automatically detonates an explosive, considered one of the key technological innovations credited with shortening the duration of the war. After earning his MD from P&S, he pursued a psychiatric residency at Walter Reed Army Medical Center and Saint Elizabeth's Hospital, then served as an Air Force flight surgeon. He served for many years as chief of psychiatric services for the Federal Aviation Agency, where he created and headed a new behavioral science division responsible for certifying the mental health of all commercial and private pilots and air traffic controllers. In 1976 he established the first in-house mental health division in the U.S. Department of State. Upon his official retirement, he returned to his native West Virginia to serve as chief medical officer and clinical director of Weston State Hospital, the state's largest institution devoted to mental health. Survivors include his wife, Ann Elizabeth, five children from his first marriage, a stepson, seven grandchildren, two stepgrandchildren, and three great-grandchildren.

1954

Thomas R. Holland, a retired internist, died June 16, 2013. Dr. Holland served in the U.S. Army based in South Korea from 1944 to 1946. He pursued a private practice for close to 30 years in Morristown, N.J., where he was also affiliated in various positions, including chief of the hematology/oncology service at Morristown Memorial Hospital. He is survived by his wife, Eneida, three daughters, and a son.

Arthur A. Like, a retired endocrinologist specializing in diabetes, died June 9, 2013. He served as a captain in the U.S. Army in Germany. A former member of the faculty in the Department of Medicine at Harvard Medical School, affiliated with the Peter Bent Brigham Hospital (now Brigham and Women's) and the Joslin Diabetes Center, he later moved to the University of Massachusetts Medical School in

in memoriam



Howard C. Taylor'55

Stephen E. Malawista'58

Worcester. Dr. Like pursued research on the immunology of insulin-dependent diabetes mellitus in the Bio-Breeding/Worcester rat animal model. Preceded in death by his first wife, Carol, he is survived by his second wife, Betty, 12 children, 28 grandchildren, and two great-grandchildren.

1955

Thornton W. Merriam, a retired internist who specialized in chemical dependency, died April 28, 2013. He served in the U.S. Navy Medical Corps. Dr. Merriam had been affiliated with Eastern Maine Medical Center Acadia Hospital in Bangor, Maine. Following his official retirement he continued to see patients on a part-time basis at the hospital's Narcotics Treatment Program. Survivors include his wife, Mary, four daughters, and a son.

Howard C. Taylor, a former medical examiner and state forensic psychiatrist for the State of Vermont, died Oct. 23, 2012, at age 83. His lifelong curiosity and active imagination led him to invent a rotating star-watching chair and to participate as a member of the first crew to winter at the South Pole. He is survived by his wife, June, three daughters, and four grandchildren.

1957

Pier L. Mancusi-Ungaro, an internist in private practice for more than 40 years who maintained affiliations with Mountainside Hospital of Montclair, N.J., and Columbia, died Sept. 11, 2013. He served as a physician in the U.S. Army, rising to the rank of captain. Through much of his career Dr. Mancusi-Ungaro served at the free public medical clinic at Columbia and bucked the norm by continuing to do house calls. Survivors include his wife, Sally, a daughter, a son, and three grandchildren.

1958

Stephen E. Malawista, the distinguished rheumatologist best known as the lead investigator of the team of research scientists at Yale (including Allen C. Steere Jr.'69) that cracked the mystery of Lyme disease, died of metastatic melanoma Sept. 18, 2013. He was 79. Observing that greater numbers of deer tended to gather on the east side of the Connecticut River, where clusters of cases of a then-unidentified condition characterized by severe rashes, swollen joints, and sometimes debilitating neurological symptoms had been reported, Dr. Malawista and his team established by ingenious medical detective work that a spirochete carried by a tick that bred on the backs of deer was the likely culprit, dubbed the condition Lyme disease (after Lyme, Conn.), and recommended antibiotics to treat it. Dr. Malawista and his colleagues were honored for their discovery in 1985 with the prestigious Ciba-Geigy-ILAR Rheumatology Prize. A professor of medicine and chief of rheumatology at Yale University School of Medicine, he was also known for his research in leukocyte motility and microbicidal activity, the mechanism of action of colchicine and the pathogenesis of gouty arthritis. Longtime rheumatology editor for the Year Book of Medicine and a past president of the American College of Rheumatology, he was the author of more than 150 original articles and more than 100 reviews and book chapters, the latter in such respected volumes as "Cecil's Textbook of Medicine," "Rich's Clinical Immunology," "Koopman's Arthritis and Allied Conditions," and "The Merck Manual." He received an honorary degree from the Université René Descartes in Paris, a Guggenheim Fellowship, the 2003 Gold Medal of the American College of Rheumatology, and the 2006 Gold Medal of the P&S Alumni Association. He is survived by his wife, Tobé.

1960

John R. Sachs, a professor of medicine emeritus at Stony Brook University Medical School noted for his research on red blood cells, died July 17, 2013. Dr. Sachs served in the U.S. Army from 1966 to 1969, stationed at Walter Reed Army Institute of Research, where he pursued studies that led to the treatment of soldiers in Vietnam stricken with a rare blood disease. He taught for some years at Yale University School of Medicine before joining the faculty of Stony Brook University Medical School as a founding member and later head of the Division of Hematology. He also was a member of the staff at Northport Veterans Hospital. Dr. Sachs contributed to several textbooks, notably "The Red Blood Cell and Red Cell Membrane Transport." He is survived by his wife, Marilyn, two daughters, a son, and two grandchildren.

1962

Robert D. "Denny" Thompson Jr., a retired internist who specialized in nephrology, died of pneumonia April 29, 2013. Dr. Thompson served in the U.S. Air Force as a physician assigned to the Strategic Air Command. A former clinical professor of medicine at Case Western Reserve, he served for more than five decades as attending physician at University Hospitals of Cleveland, where he co-founded an end-stage renal program. He also served for many years as a member of the board of trustees of the Centers for Dialysis Care, which he had founded. He was a former chair of the board of trustees of University Suburban Health Center. Among his greatest satisfactions, he once wrote on an alumni questionnaire, "I have been fortunate to see the science of organ transplantation evolve from its infancy to being a standard form of therapy." He is survived by his wife, Carolyn, a daughter, and two grandchildren.

1964

David S. David, a nephrologist and member of the medical team that cared for the first dialysis and kidney transplant patients in New York, died April 9, 2013. Dr. David served in the U.S. Army Reserves. He was a member for many years of the teaching faculty in the Department of Medicine at New York Hospital/Cornell Medical Center. Dr. David is survived by his wife, Vera, a daughter, a son (Eric David'02), and three grandchildren.

1965

William B. Caskey, an internist specializing in endocri-


Robert D. Thompson Jr.'62


David S. David'64


James H. Heroy'66


John Canada Bowen III'67


Brian R. Copeland'75

nology, died May 21, 2013. He was long associated with United Health Group and previously served as chair of endocrinology, CEO, and vice president of clinical development at the St. Francis Medical Center in Lawrenceville, N.J., where he was instrumental in establishing the first catheterization laboratory. Dr. Caskey was a past president of the Mercer County Medical Society. He is survived by his wife, Mary, two sons, and two grandchildren.

1966

James H. Heroy, a respected otolaryngologist and head and neck surgeon, died March 13, 2013. He served as a medical officer and surgeon in the U.S. Navy. After pursuing a private practice in Fallston, Md., he moved to Las Vegas and joined Ear, Nose and Throat Consultants of Nevada. Survivors include his wife, Karen, two daughters, a son, and four grandchildren.

Donald L. Snider, a former chair of the board of directors of Health Care Excel, a consulting firm dedicated to assisting health care professionals deliver quality, cost-effective care, died Feb. 16, 2013. Long affiliated with Good Samaritan Hospital in Vincennes, Ind., he was a past president of the Knox County Indiana Medical Society and a member of the board of directors of the Impaired Physicians Committee of the Indiana State Medical Association. He was the recipient in 2004 of the Sagamore of the Wabash, the highest civilian award in the state of Indiana. He is survived by his wife, Dona, two daughters, a son, and a granddaughter.

1967

John Canada Bowen III, a vascular and gastrointestinal surgeon, died of cancer May 13, 2013. A member of the clinical faculty in the Department of Surgery and Physiology at the Louisiana State University School of Medicine, Dr. Bowen was chairman emeritus of the Department of Surgery at Ochsner Clinic Foundation Hospital in New Orleans. A member of the board of trustees at the Alton Ochsner Medical Foundation and of the board of governors of the Ochsner Clinic, he served as a past president of the American Surgical Society and the Society for Surgery and the Alimentary Tract. Dr. Bowen served as a captain in the 24th Evacuation Hospital in Vietnam, earning a Bronze Star, and subsequently pursued research in the Division of Surgery at the Walter Reed Army Institute of Research in Washington, D.C. He is survived by his wife, Mimi, a daughter, and a son.

1969

Dennis C. Turner, a psychiatrist, died of cancer May 20, 2013. A member of the clinical faculty in the Department of Psychiatry at California Pacific Medical Center, Dr. Turner trained at the C.G. Jung Institute of San Francisco and pursued a career as a Jungian analyst.

1971

Robert G. Hickes, an internist specializing in hematology-oncology based in Ithaca, N.Y., died July 30, 2013. Following many years of private practice he became a hospitalist at Crouse Hospital in Syracuse, N.Y. He is survived by his wife, Carol, two daughters, a stepdaughter, and a stepson.

1975

Brian R. Copeland, a respected neurosurgeon, died June 8, 2013. He taught on the faculty at the University of California at San Diego and served as medical director of gamma knife radiosurgery and as senior staff neurosurgeon at Mid Michigan Medical Center in Midland, Mich. Dr. Copeland previously spent two decades as a research scientist at Scripps Research Institute and saw patients at Scripps Clinic in La Jolla, Calif., where he headed up the Division of Neurosurgery. He was also chair of the Department of Neurosciences at San Diego's Children's Hospital. He is survived by his wife, Margaret, and two stepchildren. Among his greatest joys outside of medicine, he once noted on an alumni questionnaire, was having climbed the Matterhorn in Switzerland on his 40th birthday.

1985

Frederick L. Brancati, a respected epidemiologist, died of amyotrophic lateral sclerosis May 14, 2013. He was professor of medicine and epidemiology at Johns Hopkins University, where he served for many years as director of the Division of General Internal Medicine. Dr. Brancati pursued research on the clinical epidemiology of type 2 diabetes and its complications. He focused, in particular, on health trends based on age, race, and ethnicity and on risk prediction for diabetic patients. He and his research team established that the A1c test was more accurate than the glucose tolerance test in predicting cardiovascular disease and diabetes. He served as chair of various committees at the CDC. In 2011 he received the Kelly West Award for Outstanding Achievement in Epidemiology from the American Diabetes Association and the Chief of the Year Award from the Association of Chiefs and Leaders of General Internal Medicine. A beloved mentor to many students and residents, he was awarded the Johns Hopkins University Diversity Award. Survivors include his wife, Dr. Elizabeth M. Jaffee, and two daughters.

1988

Sandra Joy Gatt, a plastic surgeon who practiced in Princeton, N.J., died Aug. 2, 2013. In her private practice she treated many women with breast cancer. She is survived by her husband, Charles, and two sons.

Other deaths among alumni:

Robert G. Williams'43
J. Howland Auchincloss Jr.'45
Lillian Recant Ames'46
Richard A. Bader'46
John Lewis Paulus'49
Benjamin Edwards'50
Paul Gerst'52
Harold "Doc" Orvis'52
Edwin Bransome'58
Gerald Kaiser'58
Martin Lawrence Sorger'60
Paul Graham'61
Mark Taylor'63
Jeffrey Ben-Zvi'83
Alan Saffran'86

P&S club corner

TEDMED at CUMC

On April 19, 2013, a group of 10 first-year students from the P&S Innovative Medicine Interest Group presented the first-ever TEDMED Day CUMC, a satellite conference to the national TEDMED conference that is championed as "a gathering of thought leaders from all sectors of society [who] come together to celebrate innovation, imagination, and inspiration and their passion for a better future in health and medicine." (www.TEDMED.com)

As a designated TEDMED flagship affiliate, TEDMED Day CUMC 2013 was a one-day conference that brought together more than 550 students, faculty, administrators, and community members from across disciplines to explore innovation at CUMC. It showcased an exciting integration of talks broadcast from the national 2013 TEDMED conference in Washington, D.C., alongside speakers from the Columbia University community: Sandro Galea, MD, DrPH ("Is it all about me? Does context matter in an era of personalised medicine?"); Wendy Chung, MD, PhD ("Is GATTACA soon to become a reality?"); Herbert Chase, MD, ("Will a machine be my new doctor?"); Olajide Williams, MD ("Can 5th graders teach their parents about stroke? The role of hip hop music."); Craig Blinderman, MD ("What can medicine learn from the Buddha?"); Jeremiah Johnson, Mailman student ("Fear- and Shame-Based Approaches in HIV Treatment and Prevention: Do the Ends Justify the Means?"); Robert Fullilove, EdD ("Did mass incarceration cause the HIV/AIDS epidemic in the U.S.?"); and Joy Hirsch, PhD ("Why is language so hard for autistic children?")

KASEY GREWE '16

Class of 2016 students who planned the 2013 TEDMED day were Madeleine Drusin, Jennifer Harrington-Knopf, Katie Hatch, Elizabeth Landzberg, Beth Leopold, Nadine Pardee, Sarah Schechter, Bryant Shannon, Benjamin Stix, and Michael Thomashow. A steering committee of Class of 2017 students has begun to plan TEDMED Day CUMC 2014.

Videos and photographs of the event, as well as additional information, can be found at the program's website, www.TEDMEDCUMC.org.

— Jennifer Harrington-Knopf'16


MICHAEL HERNANDEZ '17

Urinetown, the Musical

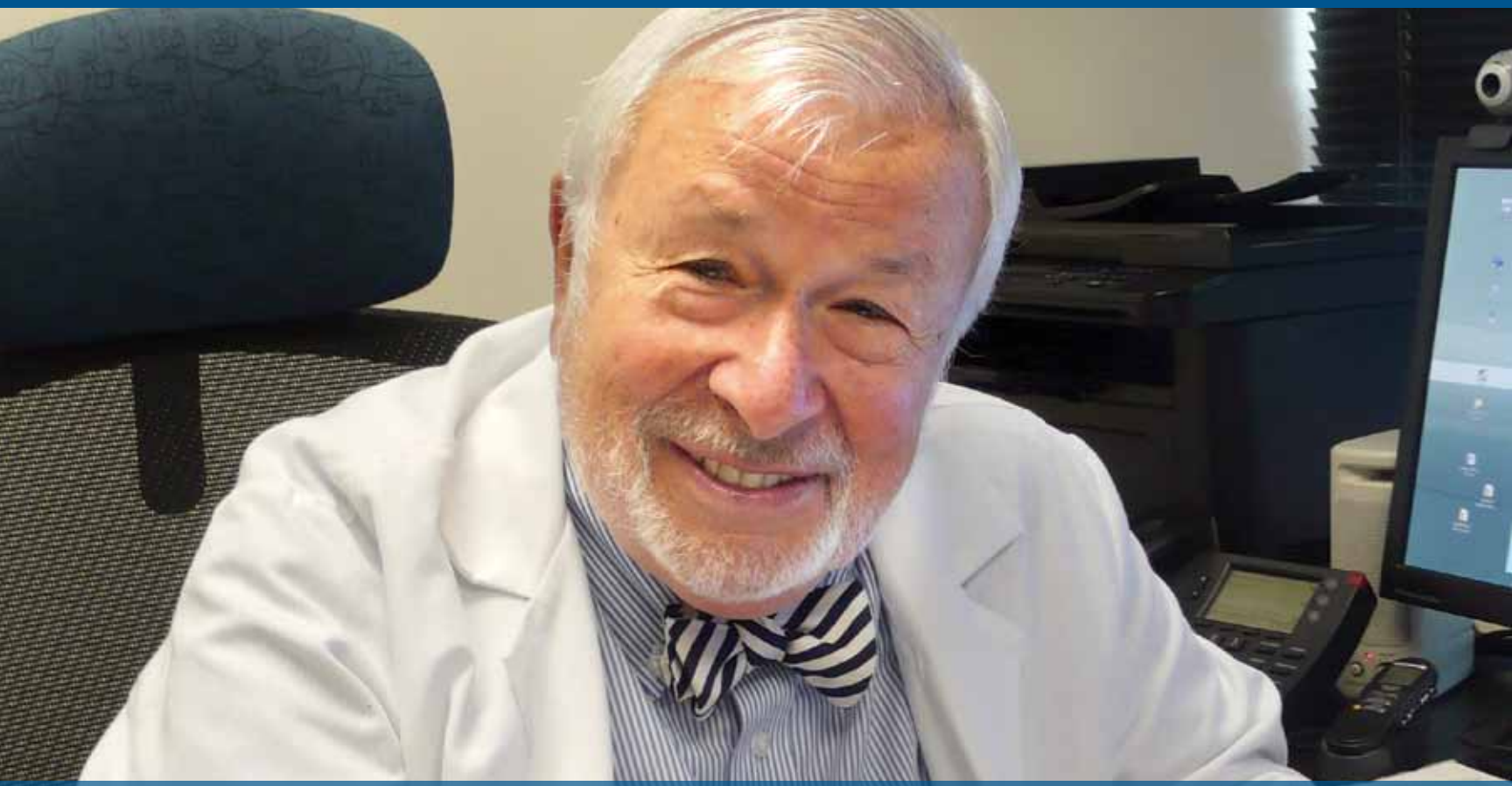
The fall musical of the Bard Hall Players was "Urinetown," which was staged Oct. 31, Nov. 1, and Nov. 2 in P&S Alumni Auditorium. The show was directed by Haley Masterson, one of the 10 inaugural Columbia-Bassett program class members scheduled to graduate next spring.

Ms. Masterson describes what attracted her to the musical: "Urinetown is a light-hearted, fun musical romp about nihilism, death, and total ecological devastation. While I was initially drawn to this musical because of the incredibly clever script and catchy score (it was nominated for 10 Tony Awards in 2001 and won three), the more I thought about it, the more I realized how perfect this dark comedy was for the Bard Hall Players. It's a true ensemble musical, calling for a wide variety of talent (and no shortage of medical inside jokes related to the subject matter)."

Ms. Masterson described directing the production as one of the most rewarding experiences in medical school. "Our cast, crew, and orchestra include medical students, pharmacology PhD candidates, a dermatologist, nutrition students, and several former professional actors, musicians, technicians, and opera singers.

"One of the best parts of my Columbia University Medical Center experience has been the incredible diversity of students. So in my final year at P&S, I'm thrilled to be able to direct so many of them in a show that allows for a surprisingly diverse array of humor, emotion, and music."

COLUMBIA UNIVERSITY MEDICAL CENTER



A PROMISE KEPT AND A PLEDGE TO HELP FUTURE GENERATIONS

If you wondered whether Marvin M. Lipman (Columbia College 1949, P&S 1954) is a Columbia man through and through, a quick glance around his office, decorated with lions, leaves no doubt.

Dr. Lipman, an internist and endocrinologist, since 1967 has served as chief medical adviser and editor of Consumer Reports, and continues to work at his Westchester practice, where third-year P&S students rotate through as part of their medical educations. Dr. Lipman continues to be favorably impressed by the breadth of their interests (not just in medicine and science, but music, dance, architecture, among others), and their relationships with those they serve: "They are more aware of the lives of their patients than we were, not just treating their diseases, but caring for their entire well-being."

He recognizes, too, the pressures a young doctor can feel from the obligation of student debt, and how what he describes as "the backbones of medicine"—family practice and internal medicine—can get short shrift as recent P&S graduates choose other fields.

Which is why Dr. Lipman has made a planned gift to P&S through the Legacy Challenge: so Columbia-trained doctors—the most knowledgeable and the most accomplished—can avoid what he calls "the tunnel vision we too often see in the practice of medicine, and pursue careers that are most important to them, and to us." For more information about making a planned gift to P&S, and how you too can make a Columbia medical education possible for the very brightest young people, please contact:

Laura R. Tenenbaum
Senior Director of Development
212.342.2108
lrt2113@columbia.edu

For additional information about Wills, Trusts, other Planned Giving options and Scholarship Support please send an email to **givingwell@columbia.edu** or call **212.342.2108.**

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quotablecolumbians

Six members of the Class of 2017 participated in Columbia programs that help aspiring students apply to medical school. From left are Leanne Duhaney, Michael Hernandez, Elvis Camacho, Nicholas Rozon, Ignacio Contreras, and Pliceliany Perez.

PHOTOGRAPH BY AMELIA PANICO

Pipeline Programs Produce Newest P&S Students

The most important thing we offer is encouragement and guidance. These are not students who would normally have expectations of attending medical school. They are good students who need support. I ask how many of them have been told they can't become a doctor or a dentist. Almost everyone's hand goes up. It gives you goose bumps.

— **Hilda Hutcherson, MD,** associate dean of the P&S Office of Diversity and Multicultural Affairs, on Columbia programs that help students pursue careers in health care

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