

weillcornellmedicine

THE MAGAZINE OF
WEILL CORNELL MEDICAL
COLLEGE AND
WEILL CORNELL
GRADUATE SCHOOL OF
MEDICAL SCIENCES

WINTER 2008/09



Into the Wild

Adventures in
wilderness medicine



DISCOVERIES THAT MAKE A DIFFERENCE

THE CAMPAIGN FOR WEILL CORNELL MEDICAL COLLEGE

CHILDREN'S HEALTH

Children's Health is a critical focus of the *Discoveries that Make a Difference* Campaign.

By marshaling more resources, we can help turn science into hope for today's kids and future generations.

Asthma, leukemia, infectious diseases, developmental disabilities -- some of the most challenging medical problems threatening the children of the world. At Weill Cornell, our researchers are at the vanguard of discovery in these and other areas of children's health.

Other major areas of the Campaign include:

- + Cancer
- + Cardiovascular disease
- + Obesity, diabetes and metabolic disorders
- + Neurodegenerative, neuropsychiatric diseases and aging
- + Stem cell, developmental biology, reproductive and regenerative medicine
- + Global health and infectious diseases
- + Molecular therapeutics

To learn how you can support the Campaign, contact the

Weill Cornell Medical College Office of Institutional Advancement at...

DISCOVERIES
THAT MAKE A DIFFERENCE
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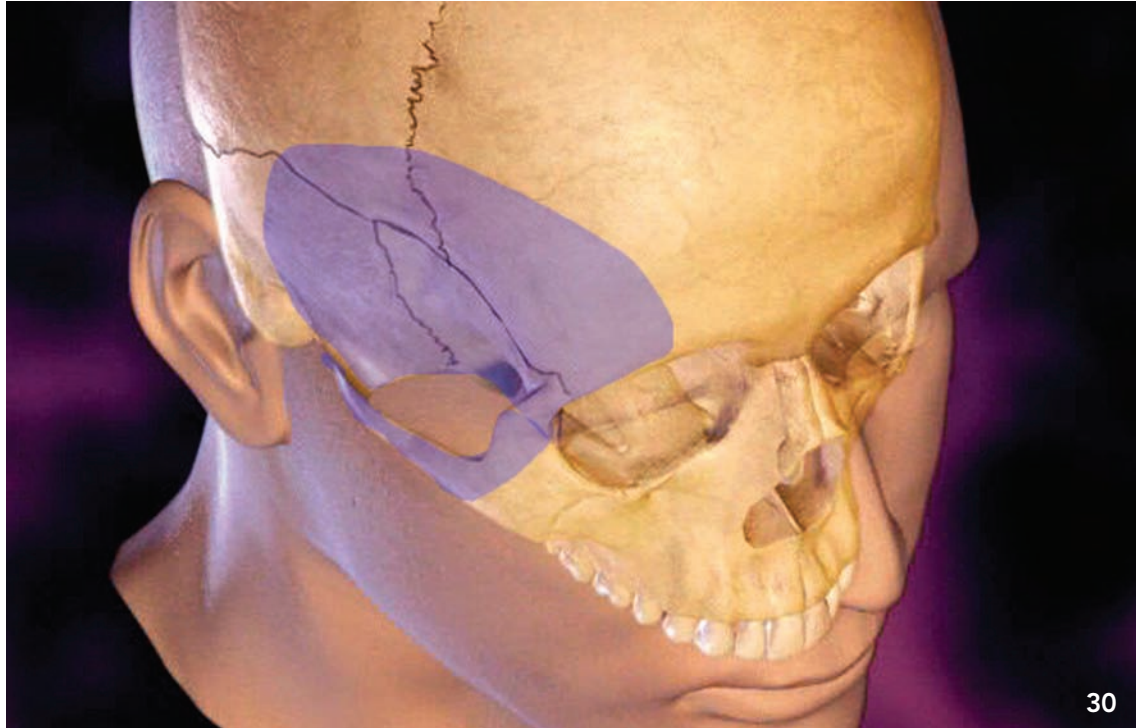
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FEATURES

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BETH SAULNIER

Weill Cornell may be based in one of the world's biggest cities, but it's emerging as a leader in wilderness and environmental medicine—thanks, in part, to outdoor-education expertise from the Ithaca campus. Twice a year, faculty take students out of the city—and their personal comfort zones—to practice medicine stripped down to the basics.

30 BRAIN POWER

ANDREA CRAWFORD

With its three-dimensional images and high-tech computing power, the Microneurosurgery Skull Base Laboratory looks like something out of science fiction. But this futuristic facility is helping save lives today, giving scientists a once-unimaginable look inside the human body—and even making previously inoperable tumors accessible to surgeons.

34 TREATMENT FOR TEENS

BETH SAULNIER

They're too young to see an internist—and too old for a pediatrician's office decorated with Bob the Builder and Elmo. Today, more teens are getting medical care tailored to their unique needs, as adolescent medicine specialists help patients navigate the transition to adulthood. "We try to understand the whole kid," one doctor says, "how all of the psychosocial and academic pieces impact their health."

Cover photograph by
Todd Miner

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SUPPORTING ‘SCIENCE AND SERVICE’

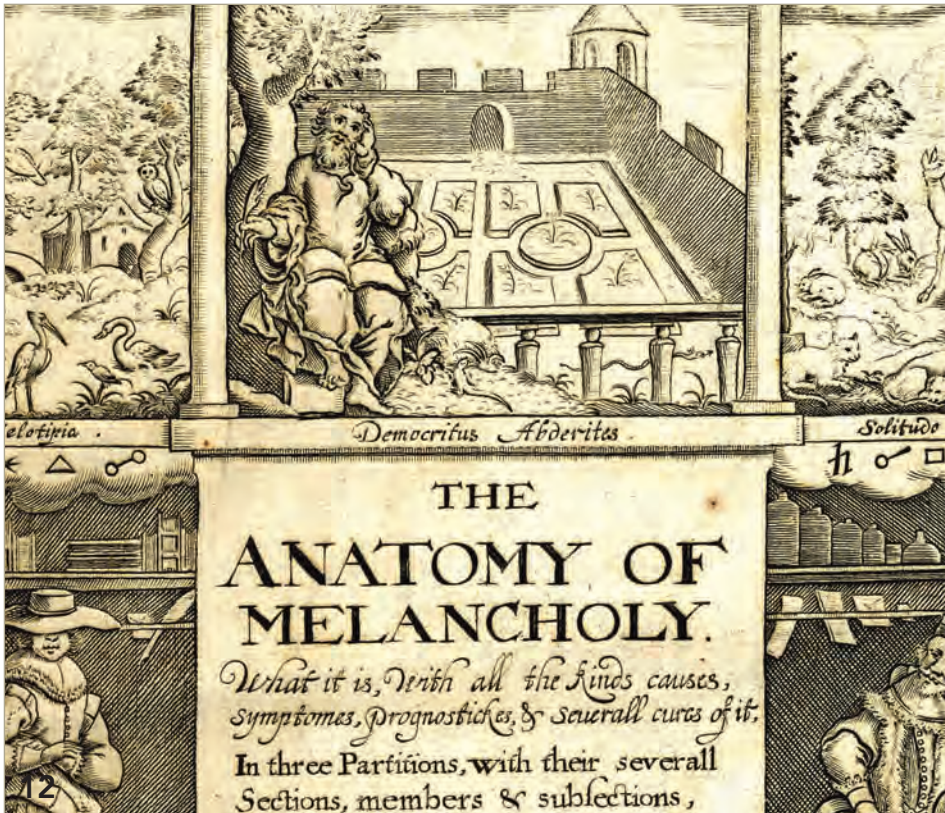
They don’t walk along their neighborhood streets anymore, stopping at a favorite shop or visiting with friends. Instead, their lives have become defined by the walls of their homes. They are among New York City’s most isolated, poor, and frail elderly residents who have become housebound. Maria Pavlou, MD, an assistant professor of medicine at Weill Cornell, has worked with social service agencies to identify them and create a large study group of patients, who often have vision difficulties and other health issues but have not sought medical care. Her work is part of the \$1 million Joachim Silbermann Family Discovery Grant in Age-Related Ophthalmic Research, an initiative of the Department of Ophthalmology and the Division of Geriatric Medicine.

The grant provides support for the detection and diagnosis of macular degeneration; research into fundamental causes of the disease; evaluation of new therapies, drugs, and prevention methods; and increased public education efforts to senior groups throughout the city. It has led to the Medical College’s first clinical trial on macular degeneration as well as a research project with the Department of Genetic Medicine. “But the third part of the grant is the most innovative and inspiring: reaching out to elderly patients in their home setting to study their visual difficulties and knowledge of potential treatments,” says Donald D’Amico, MD, chairman of the Department of Ophthalmology.

Almost immediately, the grant led to a discovery. While some patients had serious eye conditions, many others had undiagnosed but treatable impairments like cataracts or outdated eyeglasses. Simple solutions could reconnect them to the world just outside their doors—and the Silbermann grant lets the ophthalmology department provide that care: new prescription lenses, vision correction, eyelid care, and other treatments for patients in need, regardless of their ability to pay.

Joachim and Rosanne Silbermann have long supported initiatives in geriatrics and palliative care at the Medical College and NewYork-Presbyterian Hospital, funding three Clinical Scholar Awards at Weill Cornell. Dean Antonio Gotto, MD, says that the Silbermann family’s giving supports “one of the most important aspects of medicine dating back to Hippocrates—namely, the relief of suffering.” Pavlou’s career, too, has centered on serving the disenfranchised. Between her residency and fellowship, she worked for the Red Cross in East Timor, where she cared for displaced refugees. At Weill Cornell, she has worked tirelessly to connect homebound older people to medical care. The grant will help Pavlou understand the root causes of elder self-neglect, yield important data that will contribute to aging and vision research nationally, and help many older people live fuller lives.

“Joachim Silbermann’s support of the Division of Geriatric Medicine has always had two cardinal characteristics: innovation and a mandate to serve patients who may not have the resources to access needed care otherwise,” says Mark Lachs, MD, the Irene and Roy Psaty Distinguished Professor of Medicine. “With this gift he’s done it again, marrying the expertise of two highly regarded programs at the Medical College to assist those who might otherwise not receive care. It’s a perfect combination of ‘science and service,’ and typical of his thoughtful approach to helping others.”



INSTITUTE FOR THE HISTORY OF PSYCHIATRY

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Weill Cornell Medical College



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Antonio M. Gotto Jr.,
MD, DPhil, Dean of the
Medical College

Meeting the Economic Challenge



JOHN ABBOTT

The economic turbulence that is gripping the nation has not spared Weill Cornell Medical College.

Our preliminary projections indicate that, due to the economy, the Medical College will realize a decrease in revenue of about \$55 million next year, on a budget of approximately \$1.1 billion. While that revenue decline will be distributed across all funds and operations, we anticipate that the fiscal year 2010 shortfall in Weill Cornell's unrestricted general funds will be a minimum of \$12 million.

Despite those economic constraints, our essential improvement and development projects will continue to move forward. The College's plan to construct a modern biomedical research building, perhaps our most critical active project, remains on track. The Overseers and Trustees have already authorized site work, which will begin in early 2009. On January 13, the Medical College received word from the City of New York that all approvals required by the City and neighborhood association had been granted, without any changes to the architectural plans or construction schedules. This is a major boost to this phase of our campaign.

With the strong leadership of our board, faculty, and donors, the current capital campaign will be a success. It is, however, difficult to predict how the turmoil in the stock and real estate markets will impact the timing of our fundraising for the biomedical research building. Therefore, prudence dictates that we begin evaluating alternative implementation plans. This new facility remains the Medical College's most important priority, and we are devoting our most crucial development efforts to that. This project will proceed, but our planning staff will begin analyzing different options for con-

struction, in case fundraising takes longer than originally anticipated.

As Weill Cornell approaches the conclusion of a five-year period of significant renovation and construction, we have limited capacity to undertake new capital projects. Projects essential to the College's long-term clinical and research strategies, such as work at the Weill Greenberg Center, the new space on 61st Street, and the imaging center, will continue.

We must also approach staffing issues with a mind toward the uncertain future. Recently, under Stephen Cohen's signature, we issued instructions to all department heads that directed them to defer hiring new personnel and to immediately begin reducing expenditures.

The advisory committee on financial planning, co-chaired by Dr. Daniel Knowles and Mr. Cohen, has been organized. It will make specific recommendations as to the actions necessary to balance next year's budget, as well as lay the foundation for evaluating the way the Medical College manages such critical resources as space, working capital, staffing, and program size.

The purpose of these actions, which are fully supported by the Board of Overseers and which parallel similar actions on the Ithaca campus, is to exercise prudence so the Medical College remains financially strong as we proceed toward the goals expressed in our strategic plan, *Discoveries That Make a Difference*. Those goals are to strengthen and expand the scientific enterprise, to extend the excellence of our extraordinary physician organization, and to keep medical education affordable and accessible.

Those are our objectives—and with your continued support I am confident that we will achieve them.

Our Greatest Strength



Scientific curiosity:
PhD student Eli Berdougo

ABBOTT

David P. Hajjar, PhD,
Dean of the Graduate
School of Medical Sciences

In her 2007 book *Day of Empire: How Hyperpowers Rise to Global Dominance—and Why They Fall*, Amy Chua argues that the signature characteristic of the seven nations and empires that have risen to global dominance over the course of world history—Persia, Rome, Tang China, the Mongols, the Dutch, the British, and the United States—was tolerance, and that the ultimate rejection of that principle was the major contributor to the downfall of all but one of those hyperpowers.

Chua argues that the willingness of a dominant culture to accept and even assimilate the practices, beliefs, and strengths of the populations it conquers and controls serves only to bolster that ruling nation. When the rulers eventually seek to restrict the lifestyles and choices of their subjects, its decline, Chua asserts, has already begun.

We at the Weill Cornell Graduate School of Medical Sciences hardly view ourselves as a burgeoning empire seeking to extend its borders at every opportunity, but Chua's hyperpower hypothesis does strike a familiar chord on our campus. Besides our world-class faculty and facilities, the diverse educational and cultural backgrounds of our more than 300 students could be this institution's greatest strength.

Every graduate student here has followed his or her own path to the doorsteps of our laboratories. There is no set course agreed upon in advance, no lockstep method that guarantees success. In addition to biology, our students have majors in chemical engineering, electrical engineering, physics, and chemistry. The Weill Cornell graduate student is an experienced, well-rounded individual who

has tried his or her hand in several arenas of excellence and will draw upon that well of life experience to find greatness here.

Take, for example, Eli Berdougo, a fourth-year student in the Allied Program in Molecular Biology

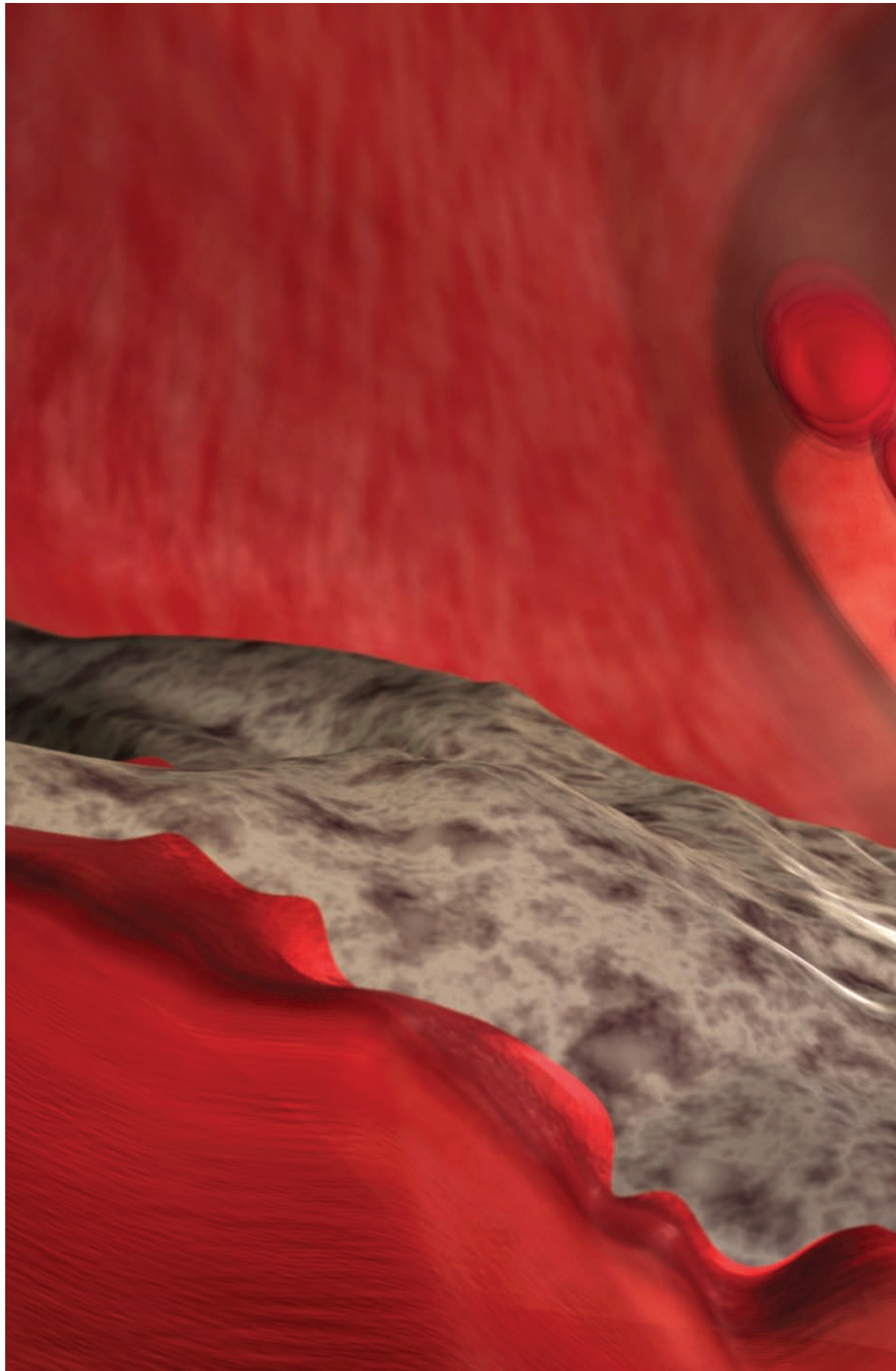
'Looking back on all the experiences and choices that led me here to Weill Cornell, I can honestly say that I've been happy with every one of them,' says Eli Berdougo. 'This is a great school and a great place to start a career in science.'

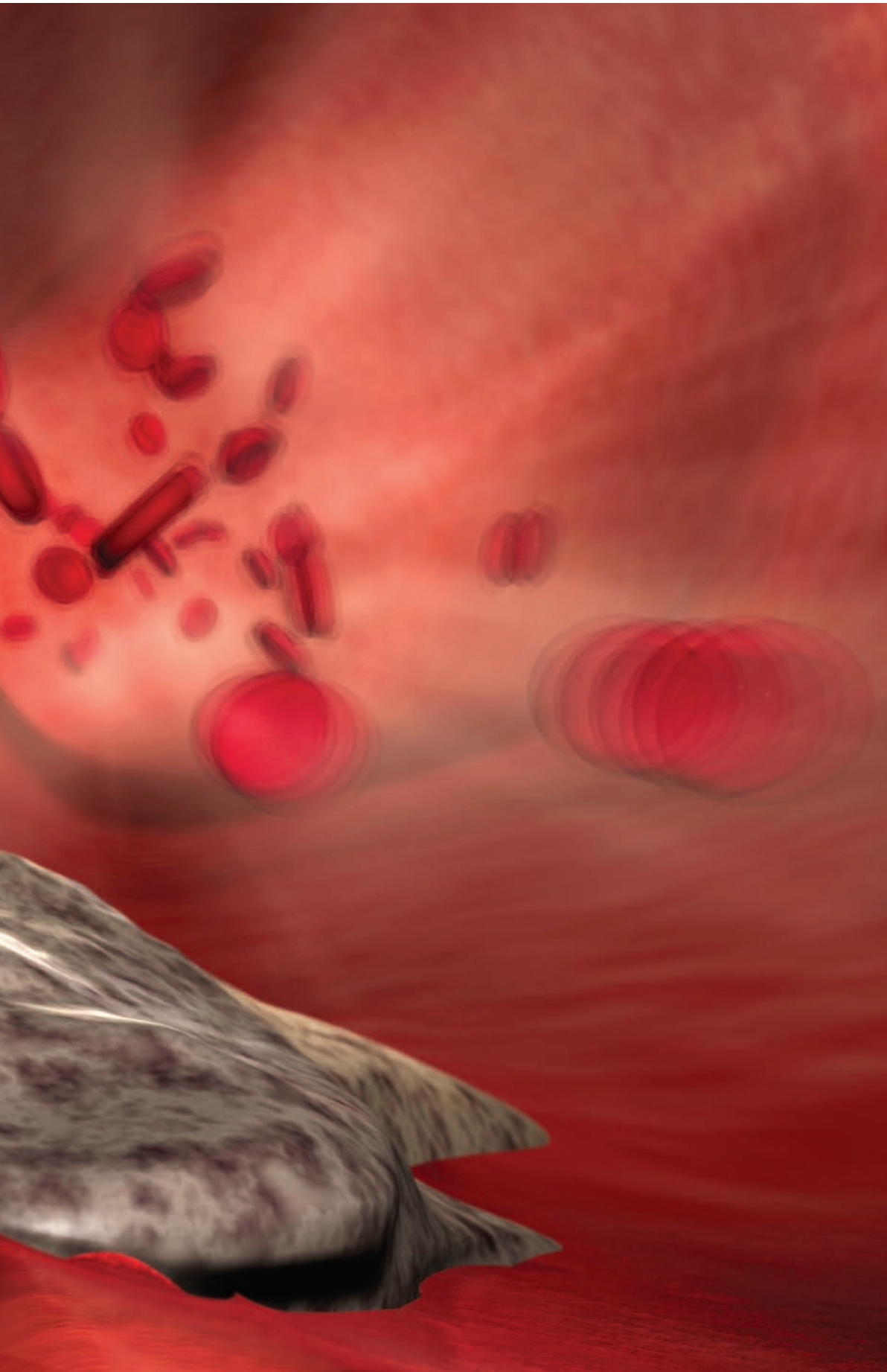
who began his career path at the University of San Francisco with the intention of majoring in engineering. "Looking back on all the experiences and choices that led me here to Weill Cornell, I can honestly say that I've been happy with every one of them," Eli says. "This is a great school and a great place to start a career in science."

Because of the rich variation in their backgrounds, our diverse student body develops into a stronger group of scientists. The Graduate School is training this pool of highly talented students in the biomedical sciences and translational research to become the next generation of academic scientists.

Light Box

Intravasation: Jared Wels—a 2004 alumnus of the Ithaca campus and a fifth-year graduate student in the biochemistry, cell, and molecular biology program—created this artistic interpretation of an invasive tumor cell migrating into a local blood vessel. The work was recently featured in the online version of the annual Medical Complex Art Show.





Scope

News Briefs

Ithaca's Weill Hall Dedicated

Benefactors serenaded with 'Weill Thing'



ROBERT BARKER / UP

That's dedication: Celebrating the formal opening of Weill Hall were (from left) Board of Trustees Chairman Peter Meinig, President David Skorton, MD, Joan and Sanford Weill, and architect Richard Meier. Students clad in white lab coats, holding celebratory signs, can be glimpsed through the windows.

The \$162 million, 263,000-square-foot Weill Hall was dedicated during an October ceremony in Ithaca, with benefactors Sanford and Joan Weill on hand for a day-long celebration. The building—designed by architect Richard Meier, a 1957 graduate of the Ithaca campus—has space for 400 to 500 faculty and staff. Its most striking architectural feature is its atrium, whose bright white walls rise above four stories of balconies and floor-to-ceiling windows.

The facility houses interdisciplinary research in the life sciences, with faculty in biology, physics, engineering, and computer and social sciences. It is home to the Weill Institute for Cell and Molecular Biology and the Department of Biomedical Engineering; both will foster collaboration between the Ithaca and WCMC campuses. At the dedication—where students honored the Weills with a rendition of “Weill Thing,” a take-off on the rock song “Wild Thing”—Sanford Weill thanked former Cornell president Hunter Rawlings III for making the “ridiculous request” that led to his gift and for “setting us on a journey we have loved being part of, and for opening our minds to thinking about what we could do.”

Discoveries Campaign Nears \$800 Million Mark

As of early December, more than \$787 million had been raised in the \$1.3 billion *Discoveries that Make a Difference* campaign, reports Dean Antonio Gotto. The focus of the campaign is translational research, in which discoveries move swiftly from bench to bedside. Its centerpiece is the construction of a biomedical research building, with state-of-the-art technology and equipment, to be located on East 69th Street between First and York avenues. Designed with an open floor plan, the building will double Weill Cornell's existing research space, allowing for maximum collaboration within and across disciplines. As part of the campaign, the Medical College will hire fifty additional faculty to build research programs and conduct investigations into pressing public health issues including cancer, cardiovascular diseases, and metabolic and neurological disorders.

Hospital, Cooke Honored for Organ Donation Efforts

In October, NewYork-Presbyterian Hospital earned a medal of honor from the U.S. Department of Health and Human Services in recognition of its high level of organ donation—75 percent of eligible donors. It was one of just eleven hospitals so honored in the New York metro area. In addition, professor of clinical medicine and public health Joseph Cooke, MD, earned the Regional Champion Award for outstanding leadership in promoting organ donation. Cooke, co-chairman of the Weill Cornell Organ Donor Council, was said to represent “the best qualities of donation and transplantation professionals who are committed to ending death on the waiting list.”

Professor's Anesthesia Book Targets Lay Audience

Assistant professor of clinical anesthesiology Panchali Dhar, MD, has written a general-audience book about anesthesia. Published in January by Tell Me Press, *Before the Scalpel: What Everyone Should Know About Anesthesia* uses real-life examples to address topics such as preparing for surgery, pain management, and patients' fears of being awake during a procedure. The book—which offers chapters on how anesthesia is used during specific situations such as dentistry, cosmetic surgery, and childbirth—includes a checklist highlighting key points for patients to discuss with their surgeon or anesthesiologist.

Disaster Experts Hold Simulations in India and Sri Lanka

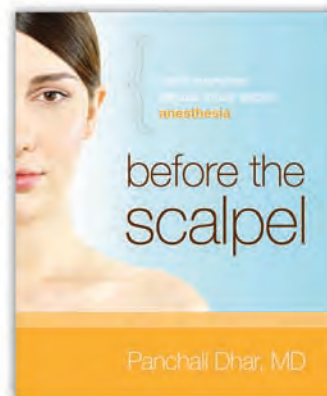
Twenty volunteer emergency medicine physicians, EMS personnel, and emergency management workers from NewYork-Presbyterian Hospital traveled to India and Sri Lanka last fall to improve emergency preparedness and response. Over two weeks, the team conducted drills and training in hospital emergency management, including several large-scale disaster simulations. “This effort is unprecedented in its goals, its quality-control measures, and its scope,” says Wallace Carter, MD, associate professor of clinical emergency medicine. “We are able to offer analysis using sophisticated bio-statistical tools, giving everyone a more detailed overview of the simulation's success. The goal is to improve disaster planning and emergency medicine around the globe and to increase public awareness about emergency management.”

Postdocs Showcased on Research Day

This year's Postdoctoral Research Day offered a bit of a twist: instead of presenting awards for best poster and podium presentations, organizers raffled off prizes for all participants. “We felt that, especially with the posters, it is nearly impossible to find an equitable way to judge,” says Lynda Pierini, PhD '96, faculty director of the Office of Postdoctoral Affairs. “We also wanted to emphasize that this is a collegial event.” Fourteen scientists from the Ithaca campus contributed to the December event, which featured the work of dozens of researchers via sixteen podium and thirty-eight poster presentations. Two faculty members—neuroscientists Teresa Ann Milner, PhD, and Frederick Maxfield, PhD '77—were honored for excellence in mentoring postdocs.



Joseph Cooke, MD



Poster presentation: Molecular medicine postdoc Sandra Mai Holley discusses her research.

WEILL CORNELL ART & PHOTOGRAPHY





JOHN ABBOTT

Start your engines: A former auto showroom now houses a neurobiology lab.

which occupies more than two million square feet of space and currently uses more energy than three Empire State Buildings—will also seek to purchase energy from renewable resources, reduce waste, and conserve water.

Quick Connections for Scientists at Match-Making Event

The “speed-dating” concept, in which singles rotate through a series of brief meetings with potential matches, has been successfully applied to the business world for years. Last October, Weill Cornell’s Clinical and Translational Science Center brought the idea to the arena of scientific research. The event, dubbed the Translational Research Bazaar, served as a speed-networking session for basic and clinical scientists from throughout the Weill Cornell community. The goal was for participants to meet each other and hear about

research they might not otherwise have been exposed to. A wine and cheese mixer was held afterward to expand on connections made during the three-minute initial conversations. More than eighty people attended, and 90 percent of them found at least one potential collaborator, according to an exit survey.

Teaching Emergency Preparedness to Kids

Last fall, Grover of “Sesame Street” fame came to Weill Cornell to celebrate the launch of the first-ever emergency preparedness kit for young children. A joint effort of the Komansky Center for Children’s Health, New York City’s Office of Emergency Management, and Sesame Workshop (the non-profit behind “Sesame Street”), the kit includes a DVD, a children’s activity book, and a resource magazine for parents. It is available in English and Spanish and can be downloaded from sesamestreet.org/ready. “What you say to a three-year-old, as opposed to what you say to a ten-year-old or an eighteen-year-old, is very different,” says pediatrics chairman Gerald Loughlin, MD.

JOSH HAMMANN



P is for Prepared: Grover with (from left) NYC Emergency Management Commissioner Joseph Bruno, Sesame Workshop CEO Gary Knell, NYPH/WCMC Senior Vice President and COO Laura Forese, MD, and Pediatrics Chairman Gerald Loughlin, MD.

Hospital Marks 1,000 Transplants and Counting

In December, NewYork-Presbyterian Hospital marked its 1,000th liver transplant with a celebration that brought together more than 200 donors, recipients, and their families. The program is in the nation’s top ten for the number of transplants performed annually—122 in 2007—and has some of the best outcomes, with a five-year survival rate of more than 70 percent. Its first patient was a girl who received a living donor transplant from her father on her first birthday in January 1998. “It is a powerful testament to the success of our liver transplantation program that ten years later, our first recipient has grown up and enjoys an active and healthy life,” says NYPH president and CEO Herbert Pardes, MD.

TIP OF THE CAP TO...

John Boockvar, MD, associate professor of neurological surgery, awarded a five-year, \$650,000 grant from the National Institutes of Health for his work on brain tumor stem cells.

Barry Hartman, MD, Ira Jacobson, MD, Mark Pasmantier, MD, and Richard Roberts, MD, winners of WCMC Alumni Association Honorary Fellowship Awards, which honor non-alumni medical professionals who have enriched the life of Weill Cornell, its faculty, and students.

Nathaniel Hupert, MD, associate professor of public health and medicine, named director of the Preparedness Modeling Unit at the Centers for Disease Control and Prevention.

Costantino Iadecola, MD, professor of neurology and neuroscience and chief of the Division of Neurobiology, winner of the Willis Lecture Award from the American Stroke Association.

Mae Jemison, MD '81, winner of the Eminent Black Chemical Engineer Award from the American Institute of Chemical Engineers.

MD-PhD candidate **Sandeep Kishore**, awarded a Soros Fellowship for New Americans.

Ophthalmology professor **Harvey Lincoff, MD**, honored by the American Academy of Ophthalmology as the first Schepens Lecturer, named for the father of modern retinal surgery.

Microbiology and immunology professors **Anne Moscona, MD, and Carl Nathan, MD**, recipients of \$100,000 Grand Challenges Explorations Grants from the Bill & Melinda Gates Foundation, to support innovative research projects in global health.

Herbert Pardes, MD, president and CEO of NewYork-Presbyterian Hospital, honored by the New York Academy of Sciences for his leadership in making New York City a center of scientific excellence.



Costantino Iadecola, MD



Mae Jemison, MD '81

FROM THE BENCH

Nutrition and Brain Injury

In the largest study ever to look at the effects of nutrition after traumatic brain injury, Weill Cornell researchers have concluded that proper nutrition increases patients' chances of survival. "For a long time, clinicians thought that intravenous fluids were enough—based on anecdotal situations and some basic biochemical knowledge—but we now know that this level of care is not meeting the actual requirement the body needs to repair itself following extreme trauma," says neurological surgeon Roger Härtl, MD, the study's lead author. From 2000 to 2006, the study monitored 797 patients and observed that the sooner they received feeding tubes, and the higher their caloric intake, the more likely they were to survive. The findings, which were published in the *Journal of Neurosurgery*, will be incorporated into the handbook *Guidelines for Management of Severe Traumatic Brain Injury*.

Drugs May Cause Fractures

Long-term use of bisphosphonates—drugs, like Fosamax, used to treat osteoporosis and prevent fractures—may actually raise the risk of stress fractures by inhibiting the body's ability to heal, says

preliminary research at NewYork-Presbyterian Hospital/Weill Cornell Medical Center. Published in the *Journal of Orthopaedic Trauma*, the study followed seventy patients, twenty-five of whom had been taking Fosamax for an average of five years. Nineteen of those taking the drug had femoral stress fractures while only one of the other forty-five people sustained the same injury. Furthermore, longer use of Fosamax seems to increase the risk—of those taking the drug, the patients with fractures had been using Fosamax for an average of 6.9 years, compared with 2.5 years for those who were fracture-free. "While more research is necessary to confirm our results, physicians prescribing bisphosphonates for longer durations should monitor patients for indications of bone regeneration," says orthopaedic surgeon Joseph Lane, MD.

Hypertension Gender Gap

Cardiovascular disease is the leading cause of death in both men and women in the U.S.—but females tend to be at greater risk later in life. A recent Weill Cornell study may explain why. Researchers focused on patients who had been taking the blood-pressure drugs losartan and atenolol for five years or more. In that time, men and women saw a similar reduction in overall blood pressure, but in women there was little change in left-ventricular hypertrophy, a

dangerous thickening and enlargement of the left ventricle. The findings, says lead author and medicine professor Peter Okin, MD '80, "clearly show that men and women do not respond the same to hypertension drugs." The study was published with an accompanying editorial in *Hypertension*.

Gains in Crohn's Treatment

Improvements in Crohn's disease surgeries are allowing patients to live longer, healthier lives, says a "state of the science" review by Weill Cornell researchers published in *Practical Gastroenterology* in November. The disease, which triggers inflammation along the gastrointestinal tract, often has severe complications that require surgery. "In the past, this was limited to complex, invasive surgeries that required the removal of whole sections of the affected bowel," says assistant professor of surgery and co-author Sharon Stein, MD. "But over the past two decades, advances in surgery have changed that paradigm." Minimally invasive techniques such as laparoscopic surgery, strictureplasty, and fistula plugs not only spare tissue but also improve quality of life. "We're learning that we can do so much more than we thought we could—reducing surgical risks, sparing bowel, and helping patients have better outcomes," says surgery chairman Fabrizio Michelassi, MD, the study's senior author.

Talk of the Gown

Insights & Viewpoints

Your Brain on Drugs

An intercontinental team reveals how neural cells process antidepressants, amphetamines, and cocaine

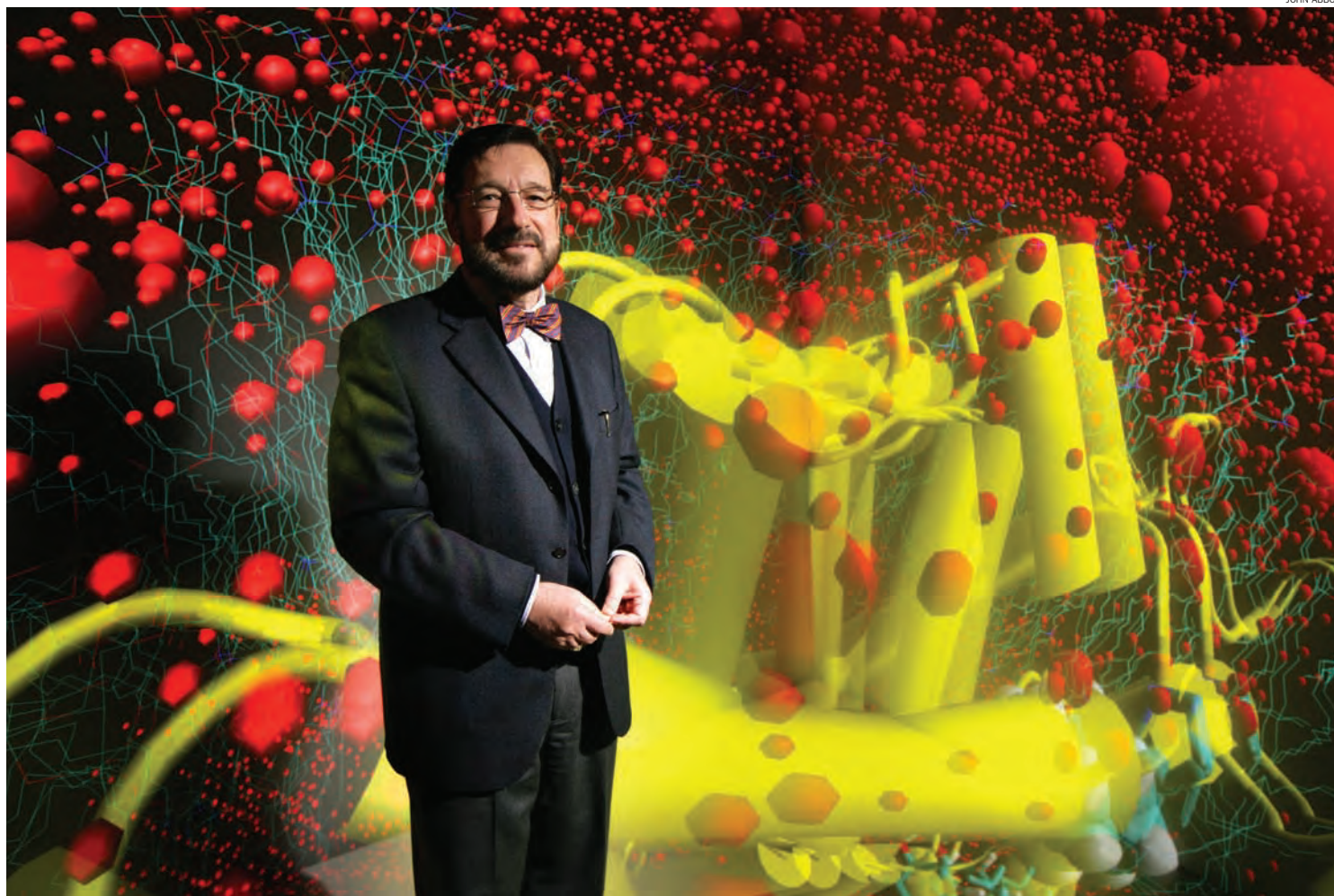
Computational biologist: Harel Weinstein and colleagues are exploring the structures of drug targets known as neurotransmitter-sodium symporters.

Millions of people take the antidepressants Prozac, Zoloft, and Effexor—all members of a class of drugs known as selective serotonin reuptake inhibitors, or SSRIs. But as physiology and biophysics chairman Harel Weinstein, DSc, notes: “The dirty little secret is that these drugs were discovered as antidepressants without knowing what their target was, and having no idea why they worked.”

Over the years, advances in X-ray crystallography, computational biology, and other fields have helped the effort to unravel the mystery—and last summer, Weinstein and colleagues from Weill Cornell, Columbia, and the University of Copenhagen announced they had found a vital piece of the puzzle. In articles in *Molecular Cell* and *Nature Neuroscience*, they described how brain cells

process antidepressants, as well as cocaine and amphetamines. The research—led at Columbia by Jonathan Javitch, MD, PhD, and in Denmark by Ulrik Gether, PhD, and Claus Loland, PhD—offers the promise of more effective therapies for mood disorders, drug addiction, psychiatric conditions such as schizophrenia, and neurological diseases like Parkinson’s.

JOHN ABBOTT



Funded by two consecutive five-year Program Project grants from the NIH's National Institute on Drug Abuse, the team's latest work has focused on the molecular and biochemical structures of drug targets called neurotransmitter-sodium symporters—specifically, how cells use them for neural signaling and where drug molecules bind to them. “These members of the transporter family are involved in everything that has to do with neuronal communication,” says Weinstein, the Upson Professor of Physiology and Biophysics and director of Weill Cornell's Prince Alwaleed Bin Talal Bin Abdulaziz Alsaud Institute for Computational Biomedicine. “So the fundamental science explaining the mechanism was enormously compelling.”

Key to understanding how the brain processes SSRIs was the discovery, made using computational simulation, of a second binding site for the neurotransmitter (near the opening of the molecule to the outside of the cell), which “turns on the engine” to move the neurotransmitter (serotonin, say) across the cell membrane. The fuel for this is a pair of sodium ions that use the transporter to penetrate into the cell as well, gravitating from an area of high sodium concentration—outside the cell—to low concentration inside the cell. This move releases the energy required to drive the neurotransmitter into the cell. The SSRIs, they found, block this cycle, preventing reuptake of serotonin and therefore keeping levels of the mood-enhancing neurotransmitter higher in the space between brain cells known as the synaptic cleft, where it keeps signaling. By more fully understanding this mechanism, Weinstein says, future drug designers may be able to spare SSRI users from common side effects like sleeplessness, sexual dysfunction, nausea, and anxiety. “If you know how it works, you can discover new ways to regulate it, new families of compounds that don't have the side effects,” Weinstein says. “That is the hope.”

The work has also opened a path to understanding how the brain processes amphetamines—among the next targets of the group's research. “An amphetamine opens the transporter's gate from inside the cell. It is usually closed and opens only when something comes in from the outside,” Weinstein explains. “But if you just open the gate, the neurotransmitter will do the same thing that sodium does—it will rush from where there is a lot of it, inside the cell, to where there is only a little of it, outside the cell. That's why amphetamine gives you these ‘rushes.’ While it is known to drive the neurotransmitter from inside the cell into the synaptic cleft, nobody knows how this works.” As with SSRIs, a fuller picture will allow for the design of medically acceptable amphetamines (currently used to treat conditions ranging from narcolepsy to attention-deficit disorder) that lack side effects

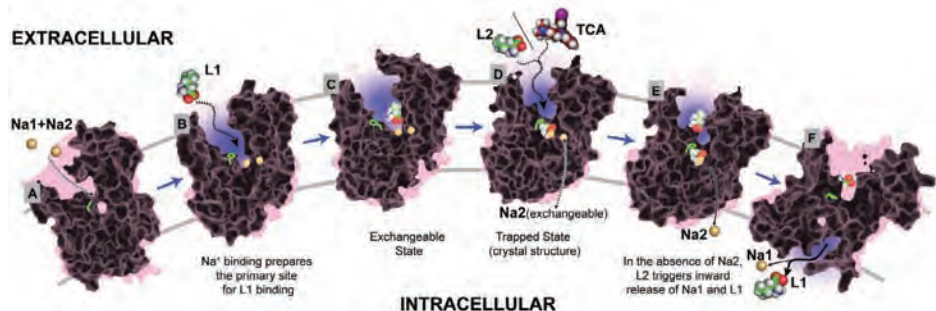
such as increased risk of heart attack—and perhaps also point to new methods of curbing addiction to their illegal counterparts, such as crystal methamphetamine.

Cocaine targets another member of this transporter family, the one that moves dopamine from the synaptic cleft back into the neural cell. “Ever since that became clear, there was an extraordinary push, strongly supported by the National Institute on Drug Abuse, to make a cocaine antagonist—ligands that would compete with cocaine, but not have the detrimental effects of cocaine,” Weinstein says. “Lots of money went into this, and a lot of attention.” But he and his colleagues found that, to their surprise, cocaine actually binds to the transporter protein itself, in the same location where the dopamine would normally bind. “That means that it will not be possible to find an inhibitor of cocaine that will bind in the same place as cocaine and not do what cocaine does,” Weinstein says. “So this has moved the entire study of cocaine antagonism into a completely new area. It has closed one direction and opened a new one.”

With three years remaining on their second five-year grant from the drug abuse institute, the tri-campus group—which Weinstein says has achieved “a synergy that is quite extraordinary”—hopes to address how its most recent discovery fits into the larger biological picture. “All mechanisms in biology are regulated,” Weinstein says. “What we are interested in now is how this transport mechanism is regulated. Regulation is enormously important to understanding how the entire cell works and how disease affects that mechanism.” He compares their task to the sort of reverse-engineering that was done on captured Soviet aircraft during the Cold War, as parts were disassembled to determine the underlying technology. “What is important is to understand how the cell works as a system—as a whole, interrelated, intermeshed set of components,” Weinstein says. “What we call ‘diseases’ are essentially impairments of the functions of cells, which are indeed due to flaws in the machinery but lead to a malfunction of the entire system. To fix the system, we need to understand how each piece of machinery serves it.”

— Beth Saulnier

Ties that bind: An illustration of the cycle in which sodium ions drive the transport of neurotransmitters



Information Overload

Patients come armed with Internet 'facts' about their health. Is it helping or hurting?



STEVE CARVER

I am completely and totally sure that I have Lyme disease,” the patient told internist Jason Kendler, MD. She had seen several doctors before him, none of whom, she felt, had satisfactorily explained her symptoms. So she had consulted health-oriented websites and diagnosed herself, says Kendler, a clinical associate professor of medicine who is director of the second-year Medicine, Patients & Society course. An infectious disease specialist, he had seen this situation before. “I started my questioning and found she hadn’t even been near an area where there are ticks,” he says. “My initial reaction was, how am I going to explain to this patient that she doesn’t have Lyme disease—especially when she’s got her mind made up that she has?”

More and more physicians are seeing patients who have turned to the Internet for information about their health, says Peter Marzuk, MD, a professor of psychiatry and Weill Cornell associate dean for curricular affairs. “In the past, the medical library was the holiest of holies, where knowledge was available only

to a select few people, mainly physicians," he says. "Now it's available to the public." Thousands of websites, blogs, news reports, and even drug advertisements let patients study their own cases—and come to doctors' offices armed with information, both good and bad. "In some ways, misinformation is just as bad or even worse than ignorance, especially when people become their own doctor," Marzuk says. "They say, 'I read on the Internet that all these patients got treated this way. Why aren't you doing this for me? Why aren't you giving me this antibiotic?' Sometimes a little knowledge is dangerous, because there's usually a valid reason why the physician is recommending treatment A rather than B."

Misinformed patients may not only advocate for inappropriate tests and treatments; they may also shy away from a therapy, frightened by sensationalized accounts of side effects posted online, Marzuk says. "People can get very scared. They're sifting through a lot of passionately phrased—sometimes hyperbolic—descriptions." If misinformation doesn't hurt a patient, at the very least it can waste time during an already limited office visit. Says Kendler: "It might take me more time to explain that you can read what you want on the Internet, but that's not the same as having years of experience seeing these problems and knowing what certain diseases look like."

Still, Kendler says, the plethora of online medical information can be helpful, making patients better educated about their health than in the past. A patient who has researched a disease and knows the basics can have more time during the visit for other questions. "Very often," he says, "what they've read on the Internet allows for a more educated discussion." While some sites disperse disinformation, many offer excellent resources, especially for chronic conditions like high cholesterol and diabetes. When Kendler counsels patients about upcoming travel, for example, he explains pre-trip vaccines and precautions. "Then I say, 'You can also go to the CDC website, and they have a wonderful section where you can read more if you're interested.'"

Patient scrutiny both before and during the office visit can also challenge doctors to keep up with the medical literature. "If they're suggesting something completely off base, it makes you feel that you have to explain yourself better," Kendler says. He notes that the increasing availability of information has developed hand in hand with more open dialogue in the doctor-patient relationship. "Many years ago, doctors would keep certain things to themselves—they wouldn't tell patients they had cancer," Kendler says. "Nowadays you not only tell the patient, but the patient can go online and look up the prognosis."

— Susan Kelley

Three's Company

NYPH/WCMC welcomes identical triplet boys

For Desmond and Kerry Lyons, the odds of winning the lottery no longer seem that long. In October, the Irvington, New York, couple became parents of identical triplets, born at NewYork-Presbyterian Hospital/Weill Cornell Medical Center. The babies were conceived without fertility treatments, an event whose likelihood experts peg at roughly one in 100 million. Even more remarkable is the fact that all three boys—Kevin Patrick, Declan Gerard, and Cormac Francis—were born in perfect health. "Not all triplet births come out this well," says Robin Kalish, MD, the assistant professor of obstetrics and gynecology who delivered them. "Kerry was fine throughout the pregnancy and had almost no complications."

At first, the Lyoneses (Desmond is an attorney, while Kerry works in online advertising) couldn't believe they were having triplets; they already had two children, four-year-old son Liam and two-year-old daughter Ciara. Disbelief quickly turned to concern due to the increased risks inherent in multiples, including diabetes, high blood pressure, and pre-term labor. Kalish was also worried about the potential for an uneven distribution of nutrients, since all three fetuses were sharing one placenta. But the pregnancy went smoothly, and Kerry and the boys left the hospital just four days after delivery. (On her way out, she asked the hospital staff: "Any of you guys want to come and help?")

The triplets' arrival landed the family on CBS-TV's "The Early Show" and garnered extensive coverage in the New York metro area media. But according to Desmond, son Liam is most excited about one thing in particular: the prospect of having three brothers to play soccer with. "There's certainly a feeling of something special going on," Desmond says. "I'm a firm believer in that God gives you only what you can handle. It's a miracle. They're all healthy—and we're very happy."

— Chris Nelson



And babies make seven: The burgeoning Lyons family leaves the hospital.

Time Will Tell

Theodore Schreiber, MD '78, aims to save lives with a rapid-response cardio team



FOTORESEARCH



PROVIDED BY DR. SCHREIBER

Theodore Schreiber, MD '78

When treating heart attacks, most interventional cardiologists live by an ironclad rule: “time is muscle.” Every second counts—and the faster they can open a patient’s clogged coronary artery with an angioplasty balloon or stent, the better the chances for survival with quality of life. The average “ER to balloon time” at U.S. hospitals hasn’t changed much in recent years; it’s still stuck at around two hours, according to the latest data from the National Institutes of Health.

But that time may improve in the wake of a potentially groundbreaking presentation by Detroit heart attack specialist Theodore Schreiber, MD '78, at the Transcatheter Cardiovascular Therapeutics conference in Washington, D.C., in October. Schreiber’s study challenged the traditional approach to treating heart attacks by suggesting that clinicians could slash treatment time in half simply by stationing an interventional cardiology team at the hospital around the clock, instead of summoning its members to the facility after a patient is diagnosed.

Although ninety minutes is the national goal for heart attack response (which often includes catheterization, angioplasty, and reperfusion of arterial oxygen), only about 20 percent of U.S. hospitals currently achieve it, says the NIH. But Schreiber’s study documented how his Cardio Team One at Detroit Medical Center has been able to cut the national average ER-to-balloon time by slightly more than half. Established last fall, the unit includes two dozen specially trained cardiologists, nurses, and technicians, who stay at the hospital for alternating twenty-four-hour shifts. During the first six months of 2008, the study noted, Cardio Team One treated ninety-nine suspected heart attacks. For the twenty-three that required angioplasty or stents, the procedure was performed in an average of fifty-five minutes. “For the first time in cardiac care, we’re asking the doctors to wait for the patients to arrive, instead of vice versa,” says Schreiber. “As our study demonstrated, we’re often able to open a patient’s clogged heart artery within half an hour of arrival.”

For Schreiber, his challenge to traditional heart attack treatment is the latest in a long series of

innovations. An early-Eighties pioneer in thrombolytic therapy, he has gained national recognition in recent years for a new carotid artery stenting procedure. A principal or co-investigator on more than a dozen studies, he was one of the first U.S. cardiologists to replace an aortic valve by catheterization, developing a minimally invasive technique that eliminates the need for open-chest procedures.

Raised in New York City as the son of Romanian immigrants who struggled to adjust to America in the Sixties, Schreiber says he grew accustomed to facing challenges and overcoming obstacles as “a pretty poor kid” who couldn’t have attended medical school without scholarship aid, though his father was an obstetrician. “My father was ill and not working when I graduated from Queens College with a degree in physics, and there was no money,” he recalls. “I had to put myself through medical school on a ‘pay as you go’ basis.”

At Weill Cornell, Schreiber studied under then-chief of cardiology John Laragh, MD, and spent his fourth year visiting Indiana Medical Center with Harvey Feigenbaum, MD, the “father

of echocardiography,” who convinced him that newly emerging, sound-based imaging methods would soon change the way cardiologists work. His medical education, he says, also taught him to challenge accepted wisdom. “Anyone who knows me knows that I can be pretty bullnecked at times,” he says. “Telling me ‘this is the way we’ve always done it’ is like holding out a red flag for me to charge at.” After earning his MD, Schreiber spent a decade at NYPH/WCMC before moving to Detroit in 1989.

Schreiber’s contention that heart attack specialists can serve their patients better by living at the hospital for one day each week has met with some early opposition from colleagues who aren’t convinced that the Cardio One approach will improve recovery rates. Nonetheless, Schreiber says he remains confident about the “simple math” involved. “I think it’s clear that delay gets you a worse result in the treatment of heart attacks,” he says. “And if stopping that delay means the attending cardiologist has to sleep at the hospital, then we’ve got to figure out a system to bring that about.”

— Tom Nugent

Although ninety minutes is the national goal for heart attack response, only 20 percent of hospitals achieve it.

Having Faith

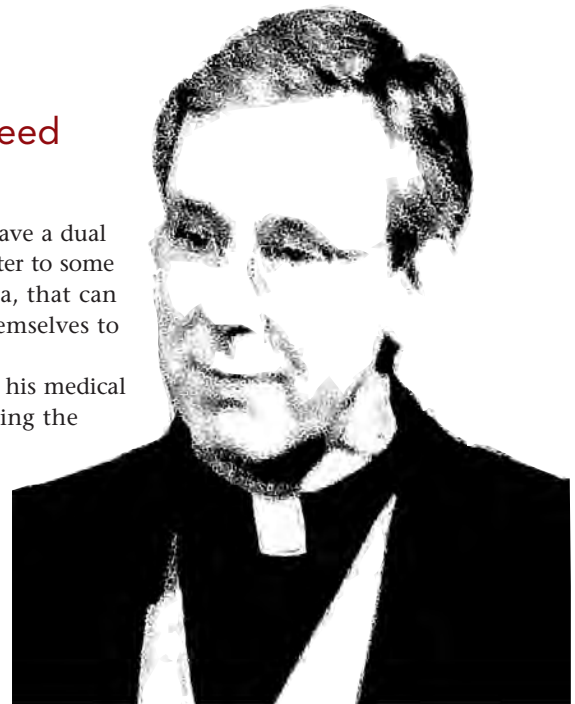
Physician-priest urges students to aid those in need

The priests, nuns, brothers, and lay volunteers of the Maryknoll Mission have a dual calling. As caregivers and servants of their faith, they both treat and minister to some of the world’s most desperate populations. In countries such as Tanzania, that can mean driving several hours to find clean water, or willfully exposing themselves to pathogens to treat dying patients—even when they lack gloves and masks.

Father Peter Le Jacq, MD ’81, a Maryknoll priest and physician, has spent most of his medical and ecclesiastical career as a missionary in, or working on behalf of, Tanzania. During the Medical College’s David Rogers Health Policy Colloquium in October, Le Jacq addressed a group of about fifty medical students at the WCMC campus on the response from faith-based groups to global health issues, and how it may differ from that of secular organizations. Tanzania—where Le Jacq has used his Weill Cornell connections (including those at the Weill Bugando Medical Centre) to help fortify the health-care infrastructure—is in the midst of a major health crisis, with AIDS and tuberculosis worsening that crisis. “We’re still at the point of trying to prevent senseless death and unnecessary suffering,” Le Jacq told his audience.

There are nearly 40 million people in Tanzania; half of the health care they receive comes from faith-based groups. The work of such groups is indispensable, Le Jacq said, not just in Africa but throughout the world. Currently, about 25 percent of all HIV and AIDS services worldwide are provided by the Catholic Church. But even more could be done, said Le Jacq, who urged the students to consider their personal faith in guiding their medical careers—but to be aware that it might lead them down an unexpected path. “Be careful what you pray for,” he said, “because your prayers may be answered—and you may be part of the answer.”

— Joshua Hammann



Father Peter Le Jacq, MD ’81

Casualties of War

Depression expert tapped to help curb veterans' suicides

Over the past year, the issue of suicide in the military has made national headlines—particularly last spring, when it was revealed that a top mental health official with the Department of Veterans Affairs had noted in an internal e-mail that the agency was seeing about 1,000 suicide attempts per month among its clients.

In the wake of the Iraq invasion, an increase in the suicide rate among veterans and active-duty military was already a matter of public concern. The previous summer, the National Institute of Mental Health (NIMH) had reported that male veterans were twice as likely as their civilian peers to take their own lives. Shortly after the e-mail imbroglio, the U.S. Army acknowledged that the suicide rate among its active-duty personnel was on the rise, nearly doubling since before the Iraq war to about 19 per 100,000. In October, the Army and the NIMH announced a five-year, \$50 million study on the causes and risk factors of suicide by soldiers.

Among the efforts to curb suicides among veterans was the establishment of a five-member “blue-ribbon working group” to address the issue and make recommendations. The group met for two days in June in Washington, D.C., where they heard advice from an expert panel of nine leading scientists in the field—including Weill Cornell pro-

fessor of sociology in psychiatry Martha Bruce, PhD, MPH. “We gave presentations about different aspects of suicide risk and prevention, especially in terms of how the research can help shape the V.A.’s services,” says Bruce. “The V.A. is pretty sophisticated in its own prevention and intervention efforts; I was impressed by what they were doing.”

Those efforts, which the blue-ribbon group praised in a draft report issued in September, have included the hiring of suicide prevention coordinators at each of the V.A.’s 153 medical centers and the creation of a twenty-four-hour-a-day hotline. (According to the V.A., in its first year the hotline received 33,000 calls and enabled 1,600 “rescues.”) The report included a list of recommendations for additional prevention efforts such as screening for suicidality among veterans with depression or PTSD, increasing training on the warning signs for V.A. chaplains, and developing a gun-safety program. (The NIMH reports that veterans are 58 percent more likely than civilians to end their lives with a firearm.) “It’s not always trendy to praise the V.A.,” Bruce says. “But the V.A. has been increasingly taking a leadership role in many areas of health care—so now, in many ways, they are on the cutting edge.”

Based at NewYork-Presbyterian Hospital’s Westchester campus, Bruce is an expert in depression among older adults, particularly homebound seniors; over the past decade, she has expanded her interest to include suicide prevention. “We discovered in talking with older people, especially those with disabilities or medical burden, that there was a surprisingly high number who were thinking about death, wanting to die, or had a high risk of suicide—it became something I couldn’t ignore,” she says. “I realized that the providers who work with seniors in their homes were extremely scared of the topic of suicide risk. So we’ve done a lot of work with home health-care nurses about how to ask questions and what to do with the answers.”

In her presentation at the Washington meeting, Bruce talked about integrating detection of suicide risk into general medical care and discussed programs for improving treatment of patients deemed to be in danger. “A lot of people think that if they ask a person about suicide, it will make that person suicidal,” she says. “This is absolutely not true. People may not volunteer information about wanting to die—but if asked, they will talk about it. So the recommendation was to teach clinicians that

Martha Bruce, PhD, MPH



ABBOTT

they can comfortably ask patients about it.”

Such an approach applies to active-duty military as well as veterans, she says—though she admits that it can be harder to get soldiers to open up. “We need to initiate programs to make it easier for people to get help,” she says. “It’s difficult, because they worry about stigma—that if they talk about mental health problems, somehow that will negatively affect the rest of their military lives.”

Bruce notes that in an all-volunteer mil-

itary, the population that enlists is self-selected—and therefore may have increased risk factors tied to their socioeconomic status. Today, many who join the armed forces come from poor backgrounds, enlisting because of a lack of employment options or to earn money for school. The same pressures they faced at home—and the same lack of resources—will be waiting for them when they return from their tours of duty, potentially upping the odds for future mental health problems. “It’s not random who

goes into wars and who are veterans, at least not since we had a draft—and even then it wasn’t exactly random,” Bruce says. “If people now going into the Army are coming from less advantaged groups, and if they’re at higher risk for illnesses and stressors, then that’s going to be with them their whole lives. So it’s particularly important that we provide the best care and the resources needed to reduce the risk of suicide when possible.”

— Beth Saulnier

Pediatric Pioneer

Remembering Dr. Margaret Hilgartner

Weill Cornell professor emerita of pediatrics Margaret Hilgartner, MD—a pioneer in hemophilia treatment and a barrier-breaking female physician—passed away on August 19. She was eighty-three and died of complications from Parkinson’s disease. She is survived by her husband of more than fifty years, pediatrician Milton Arky, MD, a daughter, two sons, and six grandchildren.

Hilgartner’s devotion to children fueled her passion for pediatric hematology and was the driving force behind her major contributions to the study of hemophilia. She was particularly interested in HIV’s effect on the growth and development of boys with hemophilia, and worked tirelessly to call attention to the HIV epidemic in the Eighties. Her research accomplishments included the first classification of hemophilic arthropathy, extensive work on complications of transfusion and infusion therapy, and studies of the infectious complications of HIV and hepatitis. But as pediatrics chairman Gerald Loughlin, MD, explains, her sympathetic nature was the key to her success as a physician. “Dr. Hilgartner was sensitive to the challenges faced by patients who had chronic conditions and needed blood transfusions, yet still wanted to be teenagers and go to proms,” says Loughlin. “I think that sensitivity drew her to being a pediatrician.” Loughlin notes that Hilgartner’s accomplishments are particularly noteworthy for a female physician working in the Fifties and Sixties. “She was a strong person, and that was important,” says Loughlin. “There was a glass ceiling.”

Hilgartner was born in Baltimore on November 6, 1924. She earned a BA from Bryn Mawr and a master’s in zoology from Duke; when she graduated from Duke’s medical school in 1955, she was one of just three women in her class. She completed residency and fellowship training in pediatric hematology at New York Hospital/Cornell Medical Center, serving as director of the Hemophilia Comprehensive Treatment Center from 1970 to 1995. She later became chief of the Division of Pediatric Hematology/Oncology and was a driving force in the Children’s Blood Foundation, serving as president from 1992 to 1995. “She had the presence, stature, intelligence, foresight, and pioneering spirit to make her a giant in the field,” says pediatrics professor Donna DiMichele, MD, Hilgartner’s successor at the hemophilia center. Hilgartner was also chief of the health department in Tenafly, New Jersey, where she and her family lived.

As friends and family noted at her Weill Cornell memorial service in November, Hilgartner led an active life outside of work. She loved fine dining, needlepoint, and the ballet; she was an avid gardener and ice skater, and always made time for her children and grandchildren. Even more than her success as a physician, this equilibrium between work and home is what impressed DiMichele most. “She had a robust life outside the hospital,” says DiMichele. “She had real balance in her life. It was probably her greatest accomplishment.”

Loughlin lauds Hilgartner as a strong mentor to young faculty, calling her “a tremendous role model.” DiMichele says she will always remember one particular interaction with Hilgartner, shortly after DiMichele first came to Weill Cornell. She was hesitant to treat a certain hemophilia patient aggressively—but Hilgartner jokingly told her, “Oh, go take a Valium and treat the patient.” Says DiMichele: “I never took that Valium, but I did treat the patient. Those simple words gave me the courage to be the physician that I am. I will always remember her for that—for her frankness, her sense of humor.”

— Justin Reed

‘She was sensitive to the challenges faced by patients who had chronic conditions, yet still wanted to be teenagers and go to proms.’



Margaret Hilgartner, MD



JOHN ABBOTT

Internist's apprentice: Marta Galecki '12

Practice Makes Perfect

Preceptor program gives first-years experience in patient care

A generation ago, medical students weren't likely to see patients until at least their third year. Now, through Weill Cornell's office preceptorship program—which pairs students with physician-mentors around the city—they're interviewing patients just weeks after matriculating. “My first day in the ER, my preceptor said, ‘Go take a full history,’” recalls Konstantinos Aprilakis, a first-year from Queens. “Afterward, he said, ‘Go ahead, present the patient.’” Although this was done under the supervision of the preceptor, Aprilakis still found it a daunting experience. “I was like a deer in headlights,” he says.

Aprilakis's experience may be at the extreme end of the spectrum—he was one of only a handful of first-year students placed in emergency departments—but the concept of the preceptorship program is the same for all students: one afternoon a week, they travel to physicians' offices throughout the five boroughs and practice taking medical histories. By the end of the year, they are well versed in the art of the patient interview.

The program is part of Medicine, Patients & Society, a yearlong course that teaches essential skills like professionalism and interper-

sonal communication through interactive lectures, role-playing, and patient care. A topic will be introduced by a lecturer in the morning, practiced via role-playing, and honed with patients in a preceptor's office throughout the afternoon. “We've moved our students into a much more active role, and they love it,” says Lyuba Konopasek, MD, an associate professor of pediatrics and the course's director. “It's a challenge they want to have.” Because first-years have little medical knowledge and little experience with clinical reasoning, the process is more about defining themselves as physicians and giving patients the space to express their needs. “With my skill set there's little I can offer patients concretely, but I'm getting to work on having confidence and making them comfortable enough to discuss their medical histories with me,” says Marta Galecki '12, who works with Lawrence Inra, MD, in his internal medicine practice on the Upper East Side.

The class also moves beyond the essentials of the patient interview into such issues as health disparities across social, economic, and racial groups and the intersection of medicine and culture. For example, at one Thursday morning class in October, Oliver Fein, MD, a professor of clinical medicine and the associate dean for affiliations at Weill Cornell, presented a lecture on the correlation between social class and health—pointing out that education, salary, and access to medical care all have demonstrable consequences for a patient's well-being. For students with preceptorships in underserved areas, the lectures provide context for the day-to-day reality of practicing medicine in New York City. “My preceptorship is probably the polar opposite of the Upper East Side; it's an underserved population with a lot of financial hardships,” says Katherine Fichtel '12, who was assigned to Brooklyn Hospital in Fort Greene. “Most of the patients are African American or Hispanic and many are on Medicare and Medicaid. On a few occasions, I've seen patients in tears or upset because they can't pay or see their doctors.”

The course gives students a counterbalance to their basic science work, they say, offering a regular reminder of why they came to medical school in the first place. In some cases, they can even have a meaningful effect on a patient's health. One afternoon in late November, an Egyptian woman walked into the emergency room at NewYork-Presbyterian Hospital/Weill Cornell Medical Center during Konstantinos Aprilakis's preceptorship shift. She was complaining of generalized body pain, but because of the language barrier, the staff could not immediately elicit a chief complaint. Aprilakis searched her chart and found that she had a history of schizophrenia and a series of broken arms and feet. When pressed, she said that she had been turned away from another medical facility. “We knew that was not their policy, but at the same time, I knew this woman was not lying,” Aprilakis says. “She may have had a history of schizophrenia, but I saw that she was sincere.”

Assistant professor of medicine Jay Lemery, MD, Aprilakis's preceptor, told him it was a unique opportunity to act as a patient advocate. So Aprilakis called the office where she had been turned away and discovered the reason: she had been seen three times without charge, but the practice would no longer see her without insurance. Aprilakis then arranged for the patient to go to an office at NYPH/WCMC that helps to enroll patients in Medicaid; she was seen for an acute ankle fracture that afternoon. “There's not much I can do in terms of helping on most cases. I'm not even close to being a doctor yet,” Aprilakis says. “But there are little things I can do—listen to a patient and spend time—and I felt like I made the best out of the time I had with this woman. That was a cool experience.”

— Gabriel Miller

Bench to Bedside

Elizabeth Nabel, MD '81, leads the fight against diseases of the heart, lungs, and blood

Only about fifty children worldwide have Hutchinson-Gilford progeria syndrome. The genetic disorder is as deadly as it is rare: its victims almost always die of a heart attack or stroke before age fifteen. But research on the syndrome by cardiologist Elizabeth Nabel, MD '81, is offering insight into the world's number-one killer: heart disease. And for Nabel, that's just a sideline.

Since 2005 Nabel has been director of the NIH's National Heart, Lung, and Blood Institute (NHLBI), overseeing an extensive research portfolio that aims to prevent, diagnose, and treat disease. Located in Bethesda, Maryland, the institute has a broad mandate, covering basic research, clinical investigations, and translation of those findings to the bedside—realms that Nabel herself has intertwined throughout her career.

Perhaps the best-known example of the NHLBI's public health efforts is the Framingham Heart Study, the longest population-based study of American adults ever conducted. Two years ago, it added a genetic component. The NHLBI has completed genotyping for its more than 14,000 participants, who span three generations: grandparents enrolled in 1948, their children in 1972, and their grandchildren in 2002. The NHLBI has used the Framingham work to shape its expansion into the investigation of genetic markers of heart disease in African American, Latino, and Asian communities. (It has also begun a genomics program in a large population of asthma patients.) "Researchers have already found new markers for genetic risk for heart disease that will, over time, find their way into clinical practices, so people can be counseled about their genetic risk," says Nabel, who received the Medical College's alumni award of distinction at Commencement 2008.

Surgery, not cardiology, first captured Nabel's imagination as a medical student. But Weill Cornell's then-head of surgery and his colleagues didn't think there was a

role for women in the field. "It was quite rough," Nabel says. "There was only one woman in the surgical residency, and she did not have an easy experience." At the same time, Nabel knew she wanted a satisfying home life. "I didn't see how a career in surgery would be compatible with having a family," she says, "particularly in an environment that wasn't conducive to women."

So she turned to cardiology—at the time, an intervention-oriented subspecialty of internal medicine. At Boston's Brigham and Women's Hospital, she completed a residency in internal medicine followed by a clinical and research fellowship in cardiovascular medicine. Nabel and her husband, whom she met when she was a resident and he was her intern, took academic positions at the University of Michigan in 1987. She rose through the ranks to become chief of cardiology, joining the NHLBI in 1999 as scientific director of clinical research.

As a researcher, Nabel has been investigating vascular smooth muscle cell biology for twenty years. In the Eighties she successfully used angioplasty to treat patients with blocked coronary arteries. But the technique was still in its infancy, and many blockages recurred—so Nabel founded a basic science lab to understand the biology of lesions that repopulated arteries. In the process, she became an expert in smooth muscle cells. "They form the backbone of blood vessels," Nabel says. "Their job is to constrict or dilate the vessels as a way of regulating blood flow through an artery or vein." When an artery is injured, she explains, the cells lose the ability to contract but gain the ability to replicate—and their proliferation, along with vessel inflammation, leads to arterial blockages.

Recently, Nabel has been collaborating with Francis Collins, MD, PhD, former director of the National Human Genome Research Institute, to understand why children with Hutchinson-Gilford progeria syndrome get heart disease. They've dis-

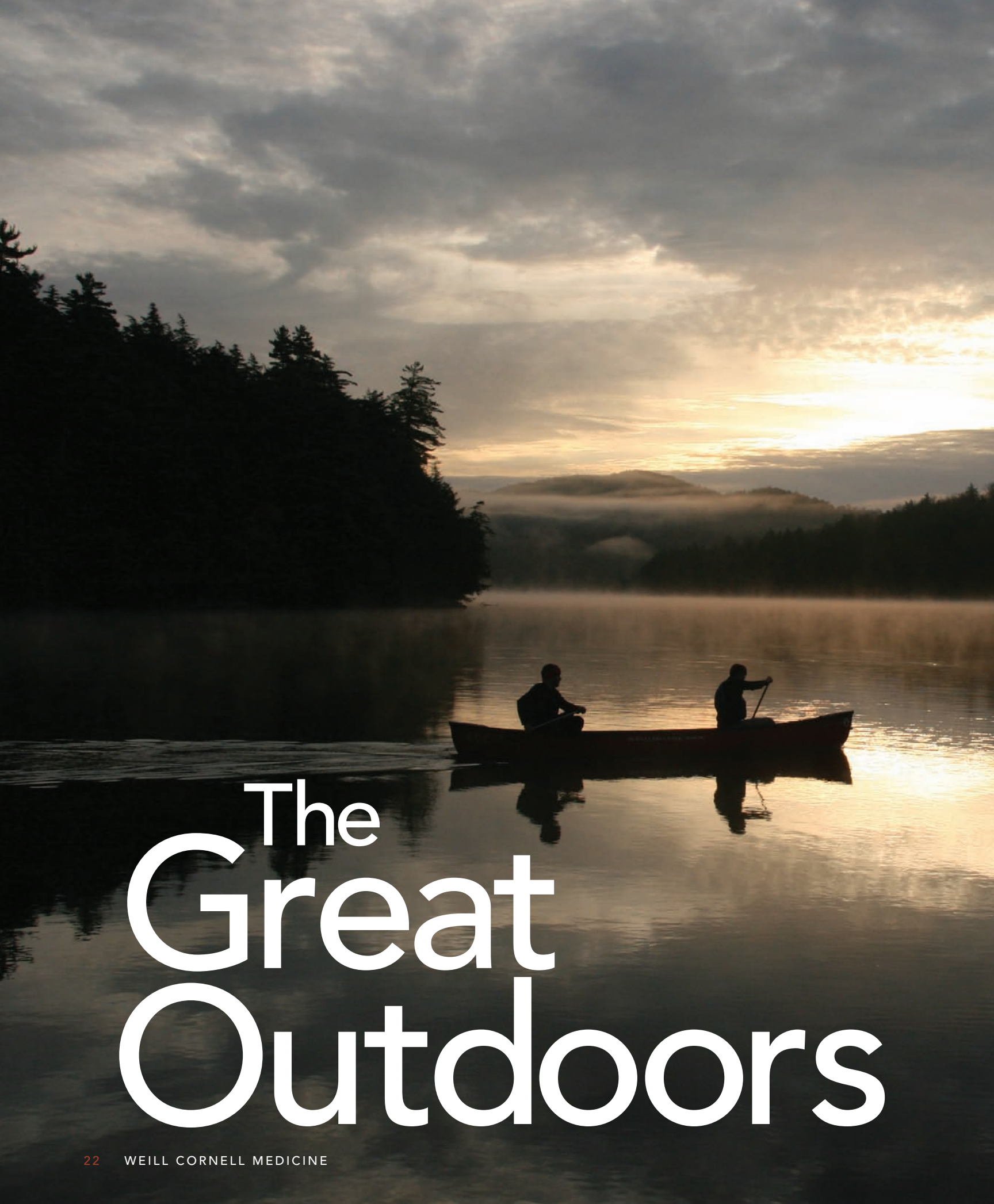


Elizabeth Nabel, MD '81

covered that the genetic mutation leads to production of a protein, progerin, that disrupts the nuclear membrane of cells, causing vascular smooth-muscle cells to "drop out" of blood vessels, leading to maladaptive vascular remodeling where vessels clog, causing heart attack and stroke—findings that shed light on the causes of common cardiovascular disease in the general population and also hold promise for treatment. "We believe that defects in vascular smooth-muscle stem cells make them fail to proliferate in a timely manner to repopulate the blood vessel," Nabel says. "This may provide us with insights into new molecular targets for heart disease treatment."

Until then, the NHLBI continues to push for prevention. It plans to create eight to ten global "centers of excellence" that will focus on primary and secondary prevention of heart and lung diseases. So far, programs are planned for China, India, the Middle East, Africa, South America, and Central America. Over time, Nabel says, the programs could top the Framingham study in helping scientists to gain a better understanding of the global nature of heart disease. "When we have an impact on individual and public health in this country and worldwide," Nabel says, "it makes me proudest of the institute's work."

— Susan Kelley



The Great Outdoors



Though it's based
in the big city,
Weill Cornell is
becoming a leader
in wilderness
medicine

By Beth Saulnier

The hikers, a group of medical students and professors visiting the Adirondacks on a gorgeous week in mid-October, are resting on the shore of Lake Champlain after a morning ramble when they hear the shouts. Tim Greene, a fourth-year student at Mount Sinai School of Medicine, comes running out of the woods, cradling his hand and looking stricken. His hiking companion, med student Kelly Grabbe, has been bitten in the lower back by a snake. He'd tried to capture it—and had been bitten himself.

The questions come fast and furious. "What did the snake look like?" "Did you get a look at its head?" "Can we find it?"

A brief search reveals that the serpent—suspected to be an Eastern diamondback rattler—is long gone. Justin Pitman, a fourth-year student from UVM, inspects Greene's wound. "I'm fine," Greene tells him. "My hand just hurts like hell."

As Weill Cornell emergency medicine professors Jay Lemery, MD, and Flavio Gaudio, MD, look on, Pitman directs his fellow students in examining Grabbe, a fourth-year at the University of North Texas. She's nauseated and cold, with a tingling sensation in her feet. They pull a mattress pad from a backpack and lay her on top of it, covering her in fleece jackets to stop her shivering.

"How's the pain, Kelly?" Pitman asks.

"Horrible," says Grabbe, grimacing and barely able to speak.

Pitman turns to the rest of the team. "We'll clean the wound a little bit," he says. "But we have to get these guys out of here—that's the main thing."

TODD MINER

‘Whether our future doctors are in a world-class, tertiary care center or traveling in the back country, we want them to be good at their medicine.’

They try to call for help, but there’s no cell phone reception. By now, Grabbe is vomiting and unable to walk, so the students collect branches and fashion a stretcher by weaving them together with rope and lining it with the pad. They lift her onto it and begin the arduous task of carrying her out of the woods and up a hill, with four people holding each side of the litter. “All suspected poisonous snakebite cases need to be evacuated,” Gaudio observes. “There’s no definitive field treatment for this.”

But when they near the top of the hill, Gaudio directs the students to put down the stretcher. Grabbe rises and dons her hiking boots; the stretcher is disassembled. The snake attack was just an exercise—though everyone involved had tried to make it seem as real as possible, using makeup to depict the victims’ wounds and throwing themselves completely into their roles.

Welcome to Weill Cornell’s wilderness and environmental medicine elective, offered twice a year by the emergency medicine department in conjunction with Ithaca-based Cornell Outdoor Education (COE). The course (four weeks in the fall, two in the spring) aims to get students out of both the hospital and their personal comfort zones, practicing medicine stripped down to the basics—no advanced diagnostic tests, limited supplies, and a need to rely on their physical exam skills and their wits. “We want our future doctors to be good doctors no matter where they are,” says Gaudio, an assistant professor of medicine who graduated from the Ithaca campus in 1989. “Whether they’re in a world-class, tertiary care center or traveling in the back country, we want them to be good at their medicine.”

With growing interest from students and an active professional association—the 3,000-member, Utah-based Wilderness Medical Society, of which Lemery is secretary—wilderness medicine is a burgeoning field. Lemery, an alumnus of Dartmouth Medical School who grew up in the Adirondacks and founded the program at Weill Cornell, cites a variety of trends that have sparked interest in wilderness medicine, from increased concern about the environment to a tendency for Baby Boomers to continue their outdoor pursuits into their later years. “They’re still active, but they have diabetes and congestive heart failure and all of those other things,” says Lemery, who has been spearheading efforts to establish a fellowship in wilderness and environmental medicine at Weill Cornell. “So the type of person who is going out into the wilderness is someone who may have less physiological reserve.” Another factor is a demographic trend toward extreme sports and other risky pursuits. “It’s the X Games generation—weekend warriors, ultra-marathon-



Carried away: Snakebite “victim” Kelly Grabbe is transported in a makeshift litter.

MNER



Around the campfire: Nighttime offers the chance to unwind and debate issues like the physician's role in environmentalism.

MINER

Camp Dudley is 270 miles from the Upper East Side, but in some ways it feels like another planet. The fresh air, the silence, the open space, the greenery, the blue water of Lake Champlain—it's light years from the noise and bustle of Manhattan, not to mention the pressure of medical school. "In third year, you're in the hospital all day and then you go to the library," says Cynthia Santos '10. "You don't leave the little radius of the hospital. There are studies showing that medical students are so deprived of sun that they are vitamin D deficient—it gets that bad."

Getting time-crunched medical students and professors out of the city for a week is a fringe benefit of the wilderness medicine elective. In fact, one of the research projects being conducted by Weill Cornell professors Jay Lemery, MD, and Flavio Gaudio, MD, is on the protective effect of outdoor education on mental health, comparing Cornell freshman surveys to diagnostic codes in a double-blind study. (Their other projects include studying the use of water filters in an urban setting, such as a disaster where supplies are compromised, and establishing guidelines for the use of epinephrine to treat anaphylaxis in the back country.) "We always say that a huge part of what we're doing is getting people out so they can see the link between the outdoors and health and wellness," Lemery says. "Historically, doctors take care of themselves horribly. So that's a big component of it, acknowledging that there's a tremendous amount of stress, from being a medical student to a resident to an attending."

Todd Miner, director of Cornell Outdoor Education, cites Richard Louv's book *Last Child in the Woods*, which describes a condition called "nature deficit disorder." "Kids these days, who average thirty hours a week of screen time—whether that's TV, computers, whatever—are not getting outside and exploring the woods," he says. "Louv claims that everything from ADD to the rise in asthma and obesity can be at least partially traced to the fact that kids spend way too much time indoors. We would like to serve as an antidote to that and get people outdoors,

Breath of Fresh Air

Wilderness trips feed more than the mind

connected to the environment—both for their own physical and mental health and also to provide the next generation of environmental leaders. Because if people don't get out there, it's a lot harder to get them to understand the role that the environment plays in our planet's health."

On the last night of the wilderness medicine elective, the students and faculty sat around the campfire and had a philosophical discussion on the link between the environment and human health. "There has been a conspicuous absence of physicians chiming in on the environmental debate," Lemery says. "My contention is that issues like global warming, population control, and resource competition affect human health. We talk about 'save the Earth,' and that's important—but as physicians, there should be a bigger component, 'save the humans.' Why aren't physicians taking a lead role in environmental advocacy in the name of human health? In the next fifty years, environmental pressures are going to put huge stress on the human population. So to be a good environmental advocate is actually to be a good physician."



PROVIDED BY DR. JAY LEMERY

Make-up test: Professor Flavio Gaudio prepares visiting faculty Chris McStay for his role as the victim of a boating accident.

ers,” he says. “We’re seeing more of that, and it’s a medical niche that needs to be filled. Who’s taking care of these people?”

Finally, he notes that increased interest in wilderness medicine reflects the growth of two related fields: disaster response and international medicine. “For those of us who were in September 11 and Hurricane Katrina, we know that our approach to treating patients was not like anything we’d ever learned,” he says. “The skills we teach in wilderness medicine are how to improvise, to think beyond the algorithm, to look around and make clinical decisions based on what you have in front of you—that’s disaster medicine in a nutshell.” The same applies to international medicine; as more students spend time in the developing world, he says, the lessons gleaned from wilderness medicine are invaluable. “What are students going to know if their entire medical training has been in NewYork-Presbyterian Hospital and they show up at a clinic and are told, ‘Here’s a pair of rusty scissors, a roll of duct tape, and half a bottle of penicillin. We’re happy to have you here—and by the way, there are 500 patients waiting for you?’ What is that student going to do? The things we teach give them a place to start—to know there are lots of different ways to approach patient care, and that there’s a real science to treating someone in an austere environment. There’s an art to it as well, but there’s also a real science.”

Queens native Cynthia Santos ’10—the only third-year student on the fall trip—grew up the daughter of an environmental scientist, taking trips to swamps and rainforests or visiting the family farm in the Dominican Republic. Though she’s also interested in a career in infectious disease, it was her passion for international medicine that drew her to the elective. “Medicine today can sometimes be excessive—and by ‘excessive’ I mean you do all of these fancy tests, and in the end it doesn’t change the management of the patient that much,” she says. “I like the thought of wilderness medicine because you don’t have MRIs, you don’t have CT scans. You just have your hands and your head. It forces you to rely on what you know and the things around you.”



Weill Cornell's fall elective begins with two weeks in the emergency department at NewYork-Presbyterian Hospital/Weill Cornell Medical Center; then the focus shifts to wilderness medicine. Students spend a week in the city—attending lectures and taking field trips to the Bronx Zoo and New York Botanical Garden—before driving five hours north to Camp Dudley, a picturesque collection of log cabins overlooking Lake Champlain that's the oldest boys' camp in America. The students, mostly fourth-years from medical schools around the country, get an intense immersion—covering such topics as heat exhaustion, frostbite, dehydration, insect bites, burns, animal attacks, poisonous plants, fractures, dislocations, and lightning strikes. "You're thinking outside the box—that's the most important thing," says Lemery, an assistant professor of medicine who attended Dudley as a child. "We've become more subspecialized in medicine and more reliant on technology, but you don't want to abandon the skills of being a doctor."

Students participate in practical exercises (known as "scenarios") by day and have fireside lessons each evening, on topics from identifying medicinal plants to removing a ring from a swollen finger. (In addition to their time at Dudley, this year's group went on a three-night canoe-camping trip and hiked 3,352-foot Ampersand Mountain in a punishing rainstorm; the spring elective includes a western trip, most recently to Arizona.) They also learn survival techniques, like navigating with a compass and obtaining potable water. "Most of the time when we have students from the city and we have a scenario of a patient with a sprained or broken ankle, we ask, 'What do you want to do now?'" Gaudio says. "They may say they want to call in a helicopter to evacuate the patient. But that might be logistically impossible—not having a landing field, not meriting that kind of resource, not having a cell phone. Sometimes they don't know what it takes to rescue someone. An evacuation might take hours or days, and they have to be able to take care of the patient, keeping him warm, hydrated, nourished. So we give them an appreciation of that."

Students swap being "doctor of the day," responsible for leading the team during the scenarios—which range from the snakebite incident to a trio of ankle injuries (incurred during an attempt to retrieve a Frisbee) to altitude sickness and hypothermia while climbing Ampersand. (As Santos recalls of Jessica Hu,



BETH SAULNIER

To the rescue: Students Lindsay Cammarata, Cynthia Santos, and Kelly Grabbe treat McStay. Below: Professor Jay Lemery gives students feedback on their performance.

Joint Expedition

City docs and country adventurers make a wilderness med dream team



MINER

How can Weill Cornell—based in the proverbial urban jungle—hope to become a leader in the field of wilderness medicine? The answer lies 200 miles northwest, on the Ithaca campus, where one of the country’s premier outdoor education programs teaches thousands of students everything from rock climbing to kayaking to mountain biking. Cornell Outdoor Education (COE) helps organize the wilderness medicine electives, with director Todd Miner attending as guest faculty and offering lessons in such skills as knot-tying and compass navigation. “COE has expertise in wilderness skills, staff, equipment, and logistics, and we know how to put together outdoor expedition programming—what we lack is wilderness medicine expertise,” Miner says. “On the other side, Weill has incredible expertise in emergency, disaster, wilderness, and environmental medicine, but not a whole lot of hands-on outdoor skills and experience, and it doesn’t have the logistical system in place. Bring the two together, and we’ve got both sides fully covered. We can help train their medical students in wilderness skills, and they can help train our wilderness leaders in emergency medicine.”

The collaboration dovetails with efforts in recent years—especially since cardiologist David Skorton, MD, became president of Cornell—to strengthen ties between the New York and Ithaca campuses. (In fall 2007, the Ithaca campus hosted the Northeast Wilderness Medicine Conference, sponsored by Weill Cornell and COE, which drew about 150 participants.) According to wilderness medicine program founder Jay Lemery, MD, such a joint effort between a medical school and an outdoor education program is unusual—if not unprecedented. “Ours is top tier in gathering all aspects of a university,” he says. “Within the Cornell community, people have always looked to emphasize the relevance of the Ithaca campus to the New York campus. This is such an intuitive fit. It’s a big hit, because it brings together the strengths of two places. The product is greater than the sum of the parts, for sure.”

a fourth-year at New York Medical College who was the “victim of the day” on Ampersand: “I felt like she wasn’t acting, because I knew she was just as tired and cold as the rest of us.”) Due to popular demand on the part of the students, the attendings themselves led a scenario, a bear attack in which the victim lost an arm. “You saw how smoothly the attendings ran it,” Santos says. “It was like instinct.”

After each exercise, the attendings, along with COE director Todd Miner, give the students feedback on their performance. Following the snakebite scenario, they note that the student doctors hadn’t taken Greene’s vital signs or removed the ring from his injured hand. “Tim was just sitting by himself,” Miner notes. “I would have assigned someone to him, because he might have gone south.” Chris McStay, MD ’02, an assistant professor of medicine at NYU on the trip as guest faculty, stresses the importance of the basics: airway, breathing, and circulation. “Get a really good assessment of the ABCs, starting with airway, even if she’s talking—because [Grabbe] wasn’t talking very much,” he says. “It’s the simple stuff. Every time you get confused, just start from the beginning again.”

The day after the snakebite exercise, McStay portrays a victim in one of the trip’s most dramatic scenarios—a boating accident that necessitates a water rescue. He, Lemery, and guest faculty member Liz Edelstein (a professor at Jefferson Medical College in Philadelphia who did her emergency medicine residency at NewYork-Presbyterian) row to an island about a quarter-mile from Camp Dudley’s dock; Lemery, playing a park ranger, radios in a call for medical assistance, warning of a possible head injury. “You’d better get a response team out here,” he says, “because people could be in jeopardy.”

Today, Grabbe has graduated from snakebite victim to doctor in charge. She organizes students into groups: some prepare for McStay’s arrival, some for Edelstein’s, and a few are assigned to row out to retrieve the patients. They find them in the chilly water thirty feet from shore; the rescuers have no choice but to jump in, helping them to shore and stabilizing their C-spines on the frigid, slippery, guano-covered rocks. (“I like being in cold water, but the temperature was probably fifty-five degrees,” McStay says later. “So our screams were pretty real.”) The rescuers eventually load them into the boats and bring them back to Dudley, where the students have gathered wood to make a lakeside campfire—which inspires its own mini-scenario when NewYork-Presbyterian paramedic Anthony Croese burns himself after tripping on a rock.

A shivering McStay is found to have a dislocated shoulder, while Edelstein’s condition is more serious; she may have spinal damage. The student doctors want to have her airlifted, but Gaudio nixes the possibility, upping the stakes. “There’s been a pileup on I-90,” he tells them. “All the helicopters are being used for that.” Informed that no rescue is available for twenty-four hours, the students set about stabilizing the patients. Afterward, during the feedback session, Lemery notes that although their performance was good, they made one obvious mistake. “There were two patients on the dock

and a beautiful fire,” he says, “and they didn’t come together for at least twenty minutes.”

The final scenario, back at Dudley after the group returns from canoe-camping, proves to be even more wrenching. Three victims are struck by lightning; one has only minor injuries but is visibly agitated, a second suffers cardiac arrest but is revived, and a third has a C-spine injury—and ultimately dies. “We never really talk about death in the back country, but it’s an important topic,” says McStay. “Most of the time when you’re hiking, you’re with people you know. When I take care of people in the emergency room who die, I have no emotional connection with them—but if you’re in the back country, chances are that you do. That complexity is the final thing that we cover. It’s probably the most emotionally charged and most difficult.” In that scenario, the student doctors do CPR on the dying victim for about half an hour, to no avail. “At some point, there’s a conversation about what to do next. ‘Do we keep doing CPR? Do we stop?’” McStay says. “Every year somebody cries or gets angry that we’ve stopped—they were friends and we should keep going. We try to highlight that aspect.”

For medical students, having such close interaction with attendings is one of the elective’s attractions. Not only do the trips’ logistics—cooking communal meals, getting muddy and soaked together—build camaraderie, but they take students out of the hierarchy of the hospital. Students and attendings are on a first-name basis; Gaudio and Lemery even get tagged with nicknames, Flava Flav and Jam Master J. “As a medical student, you sometimes feel like you’re at the bottom of the ladder,” Santos says. “Your attendings might be friendly to you, but you’re never actually good friends. But when we were out there, I felt like we were on the same level as Jay and Flavio, and I’m grateful for that.”

The students’ enthusiasm for the elective is reflected in the course critiques, which Lemery and Gaudio say are overwhelmingly positive. “The evaluations that we get are superlative,” Lemery says. “‘It’s the best course I’ve had in medical school,’ ‘The teaching was amazing,’ ‘I think about medicine in a way I’ve never thought about it before,’ ‘This is totally useful in almost any practice you’re going into.’ We’re now getting e-mails from students across America and the world. So I think the word is out.”

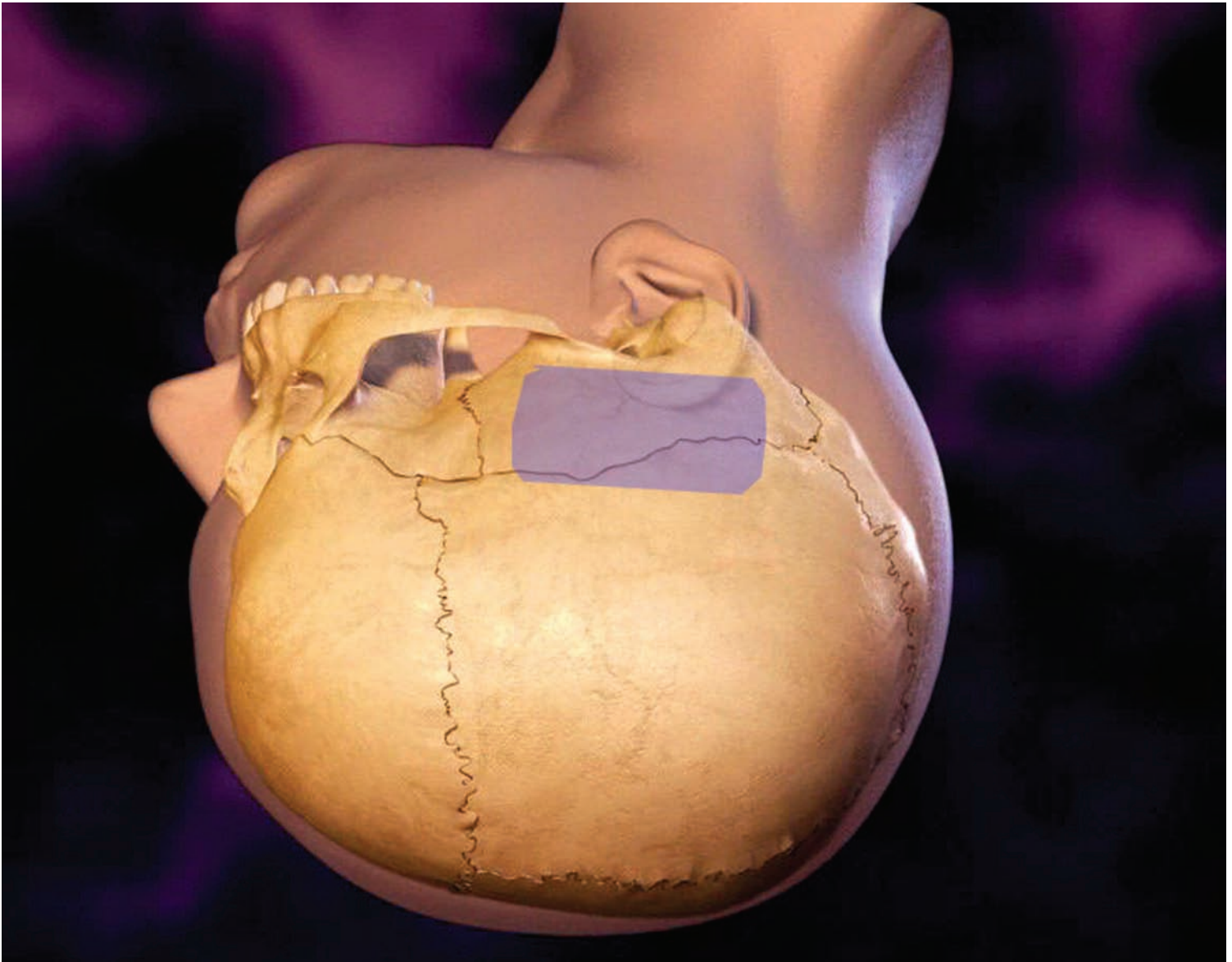
Occasionally, the students and faculty even get to respond to real-life emergencies. While driving through Sedona on one of the Arizona trips, the group came across a car that had gone off the road, hit a rock wall, and overturned; the driver, who was on a blood thinner, had a bad scalp laceration. Croese broke the rear window, calmed the patient, immobilized his C-spine, and helped extract him when rescuers arrived. And during the Northeast Wilderness Medicine Conference in Ithaca in 2007, Gaudio became a patient when he sliced his shin open on a razor-sharp rock during a rope traverse across a gorge. “I always have some sutures in my wilderness medical kit,” Gaudio says. “So we bandaged it up, and instead of going to the local emergency department we went to Jay’s room, washed it out, anesthetized it, and closed it up. It was just one emergency doctor helping another.” ●

‘The evaluations that we get are superlative,’ Lemery says. “This is the best course I’ve had in medical school.” “I think about medicine in a way I’ve never thought about it before.”



In the Microneurosurgery Skull Base Laboratory, virtual reality gives surgeons a once-unimaginable look inside the body

Brain Power



IMAGES PROVIDED BY DR. ANTONIO BERNARDO

By Andrea Crawford

The skull of an anonymous patient, a male born on New Year's Day 1934, appears before you, floating off the computer screen like a hologram. You resist the urge to reach out and touch it, pushing the 3-D stereoscopic glasses up the bridge of your nose. Wearing his own pair, Antonio Bernardo, MD, sits at a computer monitor, a joystick in each hand. The one on the left controls the image, turning the head in any direction. The smaller, pencil-shaped tool in his right hand acts alternatively like a mouse, clicking through tabs in the computer program, and as a surgical tool.

All in your head: The lab offers detailed images of the skull and brain, which can be manipulated and viewed from a variety of angles to plan surgical approaches.



JOHN ABBOTT

Technology and treatment:
Antonio Bernardo, MD. Below:
One of the lab's 3-D images.

With one click, the bone structure of the skull disappears, revealing the brain. Another click and the spongy pink matter disappears too, leaving only the bright green of a lesion interlaced with a blood-red vascular system. The sudden revelation of this image is stunning—not because of the tumor's ominous presence deep within the



patient's brain, but because the vibrantly colorful figure is so beautiful.

These 3-D images are the newest weapon in a neurosurgeon's arsenal—and the forty-three-year-old Bernardo, director of Weill Cornell's Micro-neurosurgery Skull Base Laboratory, is playing a leading role in their development. A computer fanatic since boyhood—in medical school, he created his own animation programs as study aids—Bernardo first turned to virtual reality technology as a tool for teaching skull-base neurosurgery. Now the work of this lab—which he's directed since 2004, hosting international fellows on three-to-four-month rotations, with a current waiting list of more than sixty—has profound clinical applications as well.

By recording every dissection conducted in the lab into a digital archive, Bernardo is enabling surgeons around the world to learn skull-base surgery, many in areas where cadavers are hard to come by, due to religious or social taboos. He is also creating a vast repository of data to be published in atlases and on the Web, accessible to the entire neurological community; building anatomical teaching models that could be of enormous use to medical students; and helping patients by developing safer routes to the brain's most inaccessible regions.

The field of skull-base surgery emerged as a subspecialty about fifteen years ago, not long before the Italian-born Bernardo began his neurosurgery residency. It is among the most challenging disciplines: the surgeon enters the brain from its base, typically through the face or from behind the ear, areas with complex neurological, muscular, and vascular structures. The benefits of such an approach are numerous; they include making inoperable tumors operable, limiting the amount of brain tissue to be retracted, and enabling better surgical control over aneurysms and tumors.

In 1999, Bernardo—traveling with donated equipment and seven human heads—landed in South America for a year-long volunteer program, funded by the Foundation for International Education of Neurological Surgery, to establish skull-base training centers throughout Peru. While teaching the courses, he realized the difficulty of transmitting information about complex micro-anatomy while having limited access to cadavers. After a lecture with conventional materials, the surgeons would make many mistakes on the precious few specimens. So Bernardo began using 3-D technology, letting surgeons see the structures first in virtual reality. “With this 3-D projection, people got a good grip on the anatomy before doing the dissection,” he says. “The results were phenomenal. They didn't make as many mistakes, and they got the best use of the single specimen.”

Back in the U.S., as a fellow at the Barrow Neurological Institute in Phoenix, Bernardo continued to develop the technology. He created a 3-D surgical simulator, the Interactive Virtual Dissection, which allows surgeons to improve visual-spatial skills by simulating surgery—doing the drilling, clipping, and cutting in virtual reality on a computer that shows actual cadaver images. Using the program, surgeons choose a route and instruments, then practice the procedures. Bernardo is now at work adding force feedback, so the tactile sensations of surgery will be replicated as well. While the hardness and roundness of the spine and nerve tissue are easy enough to approximate, he says, brain tissue is more difficult to replicate on a computer program, due to its elasticity.

On the screen before him, Bernardo demonstrates how the 3-D technology can also transform pre-operative planning, as he weighs several options for surgical approaches to removing a tumor. By importing data from CT scans, MRIs, and ultrasounds, the program creates a replica of the patient in three dimensions. Bernardo investigates the skull from every possible angle, zooming in and out. He slices the plane of the skull by increments, seeing the exact contours of the lesion and its relation to the bone and vascular structures. He resects the tumor, which enables him to see where any vessels or nerves lie within it.

Then, Bernardo turns the patient's head into a surgical position and demonstrates the conventional approach through the top of the head—a pathway, he shows, that would make complete removal of the tumor impossible. He turns the head another way, and demonstrates the much shorter orbitozygomatic path. The difference is striking. All options still not exhausted, he turns the patient again and tries another approach, known as a subtemporal with anterior petrosectomy. It too reveals complete access to the tumor, but turns out to have an even shorter trajectory. It's the preferred route. "I used to have to picture the dimensions in my head just by looking at the flat image on the lightbox," he says. "Now I can turn the image around, put the head into surgical position, look at it from various approaches, and see what kinds of structures I'm going to encounter. You can completely extrapolate the depth of the surgical field, see which route takes you closer. It makes everything safer for the patient."

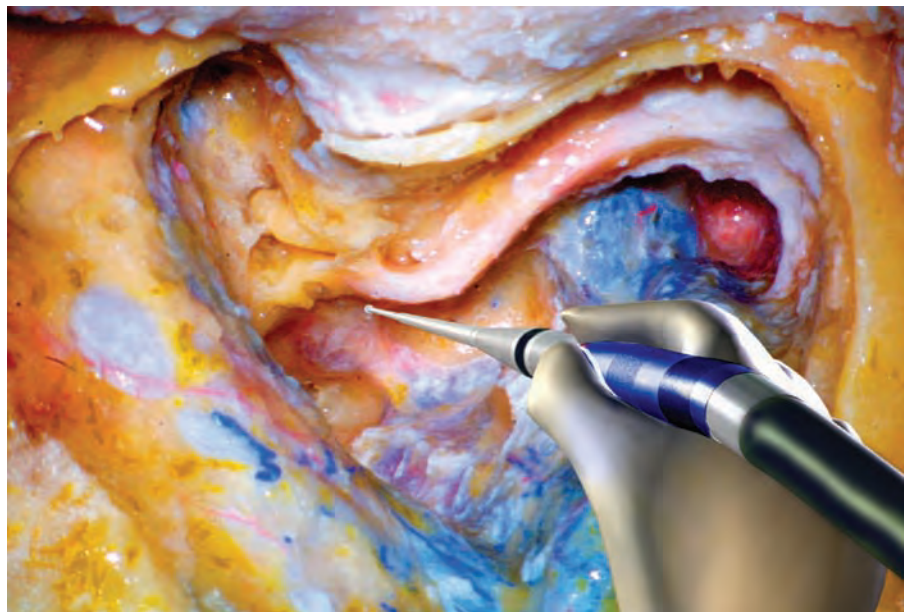
For now, the best way for surgeons to use this knowledge is simply to memorize it. In this case, the surgeon knows he will resect the tumor from top to bottom rather easily and that the task will grow more difficult toward the bottom, where the lesion rests on the carotid artery; by reaching beneath each side of the artery, however, he'll be able to remove it entirely. But Bernardo hopes there may soon be another way to use the data.

The 3-D image could be viewed through a visor that allows surgeons to switch between it and the microscopic view of the actual surgical field. In fact, Bernardo is at work on just such a device.

The laboratory was in transition last fall, moving from one space to another during a building renovation. In its temporary quarters, it doesn't look so high-tech. It contains two workstations, surgical bays that—aside from issues of sterility—look just as they would in an OR. On the microscope, Dr. Bernardo has mounted four video and two still cameras to record dissections. In a container on the surgical tray lie two pieces of skull, a visual representation of a two-piece orbitozygomatic craniotomy, one of the most useful skeletal gateways for skull-base surgery.

When each new fellow arrives at the lab, Bernardo offers this surprising piece of advice: Don't study too much. "It sounds paradoxical,

'You can completely extrapolate the depth of the surgical field, see which route takes you closer. It makes everything safer for the patient.'



and they look at me strangely," he says. "But when you read too many papers you get a bias, and then when you do dissection, you'll do the same dissection that's been done before." So for the months of their fellowship, he tells them, give your brain the freedom to explore. "At the end of the day, 98 percent of the time, you'll end up doing what's been done before," he says. "But if you do this experiment, you've got that 2 percent chance to do something nobody's ever done." ●

Virtual vision: Surgeons can simulate procedures using images taken of cadavers.

For more information about the Micro-neurosurgery Skull Base Laboratory, go to: www.cornellneurosurgery.com/skullbasesurgery

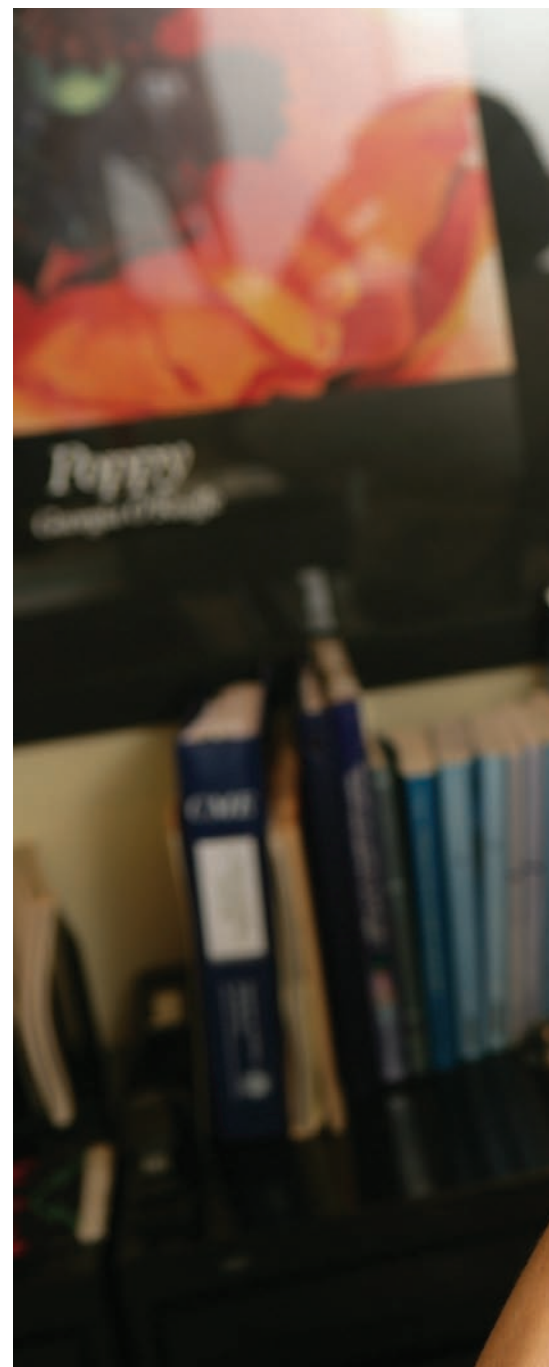
Treatment for Teens

By Beth Saulnier

From the moment you walk into Ann Engelland's medical practice, it's clear this is no ordinary pediatrician's waiting room. There are no Tinkertoys, no *Ranger Rick* magazines, no Barney videos, no eye-popping primary colors. Instead there are cool shades of mauve and brown, a wall-sized map of the world, a magnetic poetry set. (Today's masterpiece: "Surgeon General's study reveals chocolate will always worship live fish.") A Georgia O'Keeffe print hangs behind the reception desk; the tables bear copies of *People* and *National Geographic*.

The environment is designed to make Engelland's patients feel comfortable—no easy job, since she treats a population that's notoriously fickle and prone to dramas large and small. Engelland, MD '81, is a specialist in the growing field of adolescent medicine; her patients range in age from ten to twenty-seven. "Adolescence, as we all know, is a complicated time," says Engelland, a fifty-four-year-old brunette with fashionable, oval-framed eyeglasses and a warm, no-nonsense demeanor. "It's that differentiation from your family; it's managing the physical issues of puberty and body changes. As adolescent medicine physicians, we try to understand the whole kid, how all of the psychosocial and academic pieces impact their health."

Engelland's practice is located in a white clapboard building on a main road in suburban Mamaroneck, New York, across the street from the local high school; the other half of the space happens to be occupied by an astrologer. ("What can I say?" she says with a laugh. "It adds color.") In designing the décor, she purposely steered clear of the latest teen fads—be they "Hannah Montana" or *High School Musical*—opting for something more neutral and grown-up. "I absolutely had in mind a place that did not feel like the pediatrician's office," says Engelland, who was profiled in a *New York Times* piece last spring headlined "Understanding the Temporary Insanity of Adolescence." "It was going to be a different experience."



Bridging the gap between pediatrician and internist, adolescent medicine specialists help patients navigate the transition from child to adult



Adult atmosphere: Ann Engelland, MD '81, sees patients in an office decorated with Georgia O'Keefe prints and Japanese lanterns.



FOTORESEARCH

According to the CDC, about half of high school students report ever being sexually active, with about 15 percent having had more than four partners.

themselves that are complex and challenging enough that they warrant specialists to care for them," says Lisa Ipp, MD '96. An assistant professor of pediatrics who graduated from the Ithaca campus in 1992, Ipp founded Weill Cornell's adolescent medicine program after joining the faculty in 2002; it includes outpatient care, resident training, and medical student education in the form of lectures, clerkships, and electives. Ipp says she was first drawn to the field of adolescent medicine during her pediatrics clerkship at Weill Cornell. "I was able to interact with some teenagers and found that I enjoyed the rapport I could establish with them," she says. "I liked taking their histories, developing relationships with them, and addressing the medical issues of that age group."

In addition to pediatrics, adolescent medicine doctors may come to the specialty through residencies in internal medicine or family practice. Like practitioners in those fields, they deal with a wide range of conditions. "They run the gamut from chronic medical issues—if they've been ill as young children, those continue—to sexually transmitted infections and pregnancy," Ipp says. "From a psychosocial point of view, eating disorders are common in this age group, as are mood issues like depression and anxiety." For Ipp, one of the attractions of the specialty is the ability to have an impact at key moments in a patient's life. "I think the frustration of adult medicine may be that patients get to their doctors a bit late in the game," she says. "We have an opportunity to intervene at a pivotal point where, if we can get through to our patients, we can make huge strides, change harmful behaviors, and help them in a lifelong fashion."

Ipp's colleague Jane Chang, an assistant professor of pediatrics, says that recent statistics from the Centers for Disease Control (CDC) indicate that one in four adolescent females in the U.S. has at least one sexually transmitted infection—a figure she calls "staggering." She also notes that according to the Youth Risk Behavior Surveillance System, a national survey conducted every other year by the CDC, about half of high school students report ever being sexually active, with about 15 percent having had more than four partners. Such figures, she says, underscore the need for specialized care for adolescents. "Several studies have shown that many teenagers who go in for medical care aren't asked about these risk-taking behaviors," she says. "We see that as a missed opportunity. The leading causes of death for adolescents are all from preventable causes: motor vehicle accidents, homicide, and suicide."

Chang got a taste for adolescent medicine as an undergraduate at Brown, when she did a research project with a physician mentor who was the director of a teen/tot clinic. "I was impressed with the way she helped mothers as young as fourteen years old," says Chang. "She was never condescending—she talked to them with such respect. Teenagers really responded to her." She recalls that during her fellowship in adolescent medicine at Montefiore Medical Center in the Bronx, she and her colleagues "made it clear that we wanted a teen-friendly space, where patients aren't sitting on little chairs with toddlers running around them."

Lee Perlman is the father of two of Engelland's patients, a twenty-one-year-old daughter and a seventeen-year-old son; he's also a veteran medical administrator, executive vice president of the Greater New York Hospital Association. Now fifty, he still has vivid memories of how uncomfortable he was as a teenage boy waiting to see his pediatrician in the same room with mothers holding infants in their laps. "I'm so happy that my kids are not in that waiting room," Perlman says. "The notion that you would go to the same doctor from the moment you're born to the moment you leave for college is weird—it doesn't make sense." He compares being treated by an adolescent medicine doctor to seeing other specialists, like an oncologist or surgeon. "Adolescent medicine says that the life cycle between an infant and an eighteen- or twenty-one-year-old is really many different life cycles," he says. "The same type of physical environment and specialization doesn't lend itself to dealing with infants and eighteen-year-olds. They're different species."

A subspecialty certified by the American Board of Pediatrics since 1994, adolescent medicine was founded in response to the growing understanding that its patient population is distinct from that of general pediatrics or internal medicine. "Adolescents have medical and psychosocial issues unto



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Creating an atmosphere where teens feel comfortable opening up to health-care providers is a central part of the adolescent medicine ethos. When Engelland sees a new patient, she explains the law in New York State: minors are entitled to confidential medical care, independent of their parents, with respect to sexual health, drugs and alcohol, and physical or sexual abuse. (If a minor's life is in danger, however, the doctor is mandated by law to break confidentiality.) "Most parents know that when they come here, the teen is the patient and not the mother, as is often the case in a pediatric office," says Engelland, whose patient base of 700 is more than 75 percent female. "I tell them, 'If you need to know something from your daughter, you need to ask her. If you can't have that conversation I can help broker it, but the information cannot come from me to the parent.' So it can be tricky."

Jean Partridge, an attorney who lives in White Plains, is the mother of two of Engelland's patients, both teenagers. She lauds Engelland's office as having a "much bigger comfort zone" for adolescents than the typical pediatric practice. "Teenagers are going through the roughest time of their lives, socially and physically—and to have someone who understands that makes it a lot easier," she says. "Her way of speaking to teens gets them to say things they wouldn't normally say to their parents or to a pediatrician they've known since they were babies, especially about sexual issues. As a parent, that's comforting." Partridge's seventeen-year-old daughter, Danielle Solinski, has been seeing Engelland for four years. She says the

No Elmo zone: Engelland's Mamaroneck waiting room is whimsical yet sedate.



FOTOSEARCH

'As society becomes more complicated and these kids have more pressure on them, there is no question that adolescent medicine is going to become more necessary and popular.'

atmosphere in Engelland's office—she calls it “cozy”—made it easier to undergo treatment for an eating disorder, anorexia nervosa. “She generally talks to me on my own without my parents there, so I can explain myself,” says Solinski. “It gives you the sense that you’re responsible for yourself and your body, versus how you would feel in the pediatrician’s office where your parents are present.”

Jake Perlman, Lee Perlman’s son, is a senior at Horace Mann in the Bronx; he’s seen Engelland throughout middle and high school. Like Solinski, he appreciates the calming mood at Engelland’s practice, with its grown-up magazines and stacks of pamphlets devoted to adolescent issues. “There are definitely some things that are awkward to talk about with a pediatrician,” he says. “Like, I have an acne problem. I hate my skin, but it’s a lot easier to talk about it with her because I’m obviously not her only patient that has this problem. When she asks you a question, you get the sense that there is nothing she hasn’t heard before, so it would be hard to surprise her.”

As Lee Perlman puts it, Engelland “doesn’t treat the illness, she treats the person.” Both he and his son stress that for a teenager, emotional and psychological issues can be as pressing as physical ones. “When you consider all the things that impact physical well-being, it’s important to understand the stressful environment these kids are operating in,” he says. “She’s dealing with the broader context of what it means to be an adolescent in the suburbs, and that is a lot more than having a stomachache or the flu. They have the pressure of getting good grades, getting into college, living in an environment where there are high expectations. As society becomes more complicated and these kids have more pressure on them, there is no question that adolescent medicine is going to become more necessary and popular.”

Getting to know her patients well is one of the great pleasures of Engelland’s job. She regularly communicates with them via e-mail—though she draws the line at text-messaging, and she makes it clear that she generally only checks e-mail during office hours. Last summer, she even treated a patient who was on a youth service trip to an isolated island in Central America, giving her a home remedy to treat a yeast infection with a vinegar bath; the girl had no access to a pharmacy, but she had an Internet connection. “Kids tell incredible stories about how they got where they are,” she says. “Medically it’s interesting, socially it’s interesting, psychologically it’s fascinating. So for me the challenge every day is to get the story so I can make a difference—and what’s better than to go to work feeling like you’re going to make a difference in someone’s life?”

But that gratification has a flip side: ask Engelland about her greatest source of job frustration, and it's how such contributions are undervalued by the medical insurance system. "I feel like I make a difference every day—but you don't get compensated for making a difference. You do if you fix someone's broken bone, but you don't get reimbursed for having a conversation that could make a difference in a kid's life." Such realities can make it hard to draw young doctors to the field. Although Chang says she and Ipp love to share their passion for adolescent medicine with medical students, she notes that doing a three-year fellowship on top of a residency—without the financial incentives that other subspecialties offer—can be a tough sell. "It's rewarding, but it's not necessarily the most popular field," Chang says, "I see this group as a population in need. They're not little kids, but they're certainly not adults yet. They need people who will answer their questions and be adult role models for them. It's so rewarding when you make that connection with a teenager. It's amazing that if you talk to them in the right way, they'll open up to you."

Although many people assume that adolescents can be evasive or dishonest with their doctors, the physicians say that's rarely the case. "I've found time and time again that adolescents are a more forthright group than they are thought to be," Ipp says. "If they're asked the history questions in a fashion where they feel safe, they actually offer a lot of information about themselves." One of Engelland's sidelines is teaching patient interview techniques to students at Albert Einstein College of Medicine. She emphasizes the importance of making a connection with a patient, forming a solid basis of trust. "What I always say is that if I lay the groundwork—which includes the minute the patient walks in the front door and sees that it looks different from the pediatrician's office, sitting down with the mother and the kid and discussing the rules of confidentiality, building a skillful interview so I get to the more sensitive stuff later on, or just listening to them—when you do all that, I've found they tell the truth. Or, almost always, I can tell if they're not telling the truth. That doesn't mean I know what the truth is. But I can tell if they're lying—body language says a lot. And I can tell if they aren't ready to open up about a particular subject, and you just have to leave them alone."

Engelland did a general pediatric residency at Columbia followed by a fellowship in adolescent medicine at Montefiore. But on top of her medical training is vast front-line experience in raising adolescents. She has four biological children—and ten years ago, she and her husband became guardians to the three children of a friend who had passed away following his wife's death from breast cancer. "So I ended up with seven kids," she says. "I had to stop working for four years to get everybody organized."

Engelland's brood now ranges in age from fifteen to twenty-seven—and she cheerfully admits that her day job makes her a formidable parent. "Sometimes they say, 'How do you know that?' and I say, 'I just *know*,'" says Engelland, whose role as district physician for the Mamaroneck schools makes her even more teen-savvy. "I know where the kids go to drink and smoke. I have my finger on the pulse of what it means to be a teenager in this community, so my kids think I have eyes in the back of my head." ●

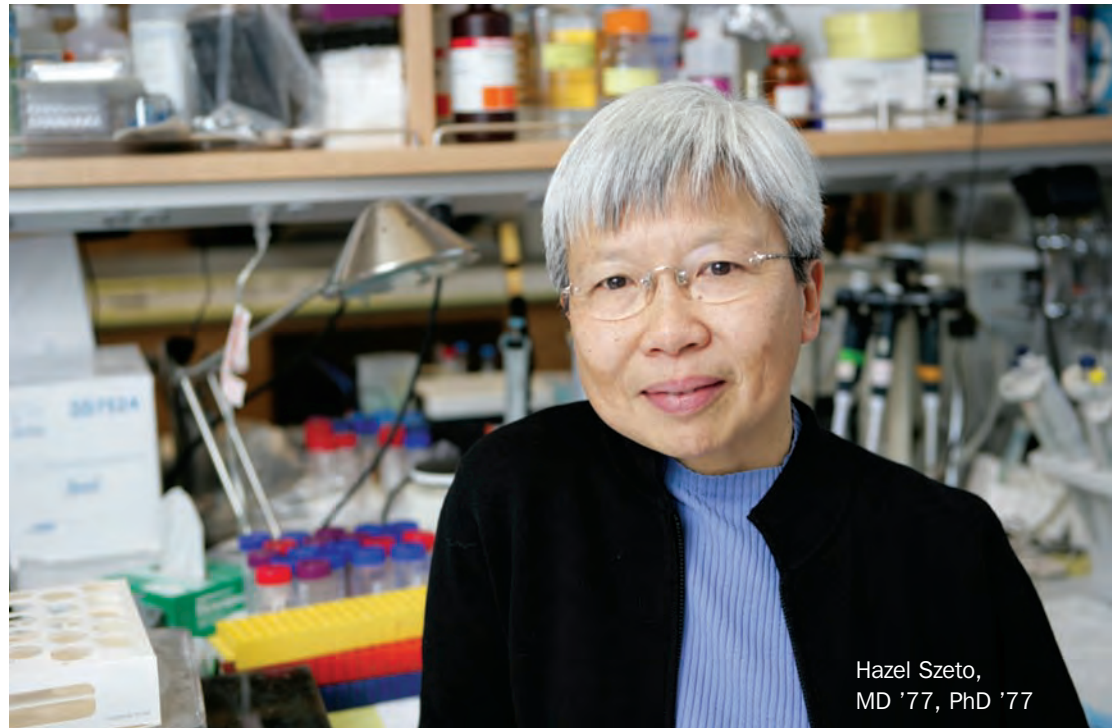


Lisa Ipp, MD '96, and Jane Chang, MD

ABBOTT

Notebook

News of Medical
College and Graduate
School Alumni



Hazel Szeto,
MD '77, PhD '77

JOHN ABBOTT

Dear fellow alumni:

The big excitement this fall was Reunion 2008. More than 400 alumni returned to see old friends, find out about the exciting things happening at Weill Cornell Medical College, and meet the students. For a few, it was their first time back since graduation. Those celebrating their silver and golden anniversaries had their private dinner parties in addition to the gala at Chelsea Piers.

Dean Antonio Gotto welcomed alumni and guests with his State of the Medical College address. He talked about the exciting progress that is being made, the highly talented student body, the latest scientific breakthroughs, and the College's global reach. More than half of all medical students now spend time in a foreign country as part of their training. Alumni were treated to a video of the commencement that was held in Doha with great fanfare last spring and a talk by outgoing WCMC-Q Dean Daniel Alonso. Two graduates of the first Qatar class who are doing their residency at NewYork-Presbyterian Hospital were on hand to share their experiences.

Alumni also had an opportunity to see how the present curriculum differs from the past, and they toured new facilities including the Weill Education Center, the newly renovated anatomy labs, and the Weill Greenberg clinical building. Tours were led by current students, many of whom joined in the festivities at Chelsea Piers. I know that alumni were impressed by the students, and I hope that many of you will be willing to help us in our mentoring efforts.

Keynote speaker Richard Daines, MD '78, commissioner of the New York State Department of Health, described how his original plan to spend

four years in New York turned into three decades. His talk, "Chance, Choice, and Charity," struck a chord in many of us as we think of the circuitous path we have taken since we left medical school. Our lives may have been shaped by our Cornell experience more than we ever imagined.

The theme of unexpected events was also central to the talk by Frank Douglas, MD '77: "Is the Pharmaceutical Industry Ready for a Black Swan Event?" Popularized by Nassim Nicholas Taleb, the term "black swan" describes a highly improbable event that carries massive impact. Douglas discussed a few potential black swan scenarios that might help re-shape the pharmaceutical industry and bring much-needed drugs to clinical use. He suggested that the new model might involve a global consortium including major governments with partners from academia and industry. Let us hope that Weill Cornell will play a major role in this effort to improve health care.

"Black swan" has been used to describe the unexpected economic downturn that has gripped the country and affected all our lives. Yes, these are scary times; even the financial wise men cannot predict how deep and long this recession will be. But as Daines and Douglas noted, much in our lives is unpredictable anyway. Taleb suggests that black swans can be positive, and that we should stay engaged and open ourselves up to serendipity.

I will end on this note and wish you all a Happy New Year!

*With warmest regards,
Hazel Szeto, MD '77, PhD '77
President, CUWMC Alumni Association
hhszeto@alumni.med.cornell.edu*

1930s

Elizabeth Chittenden Lowry, MD '35: "I'm still vertical at 99, enjoying my five children, 14 grandchildren, and 13 great-grandchildren, along with many friends who come to visit. No more farm animals, though."

1940s

Elizabeth Main Welty, MD '41, is alive and well and busy in Spokane, WA.

Robert M. Kiskaddon, MD '42, trained in internal medicine at the Cleveland Clinic after he graduated. He has two grandsons who plan to become physicians, making them the 49th and 50th doctors in his extended family. Of his four children, three are doctors: Robert is an otolaryngologist in Boston; James (Chambersburg, PA) and Bruce (Tampa, FL) are ophthalmologists. Dr. Kiskaddon's wife, Joyce, is the great-niece of William E. Lower, one of the founders of the Cleveland Clinic. After training at the Cleveland Clinic, Dr. Kiskaddon set up a solo internal medicine practice in Youngstown, OH. Today, he and his wife live in Punta Gorda, FL. He enjoyed sailing, but had to give it up after he suffered a stroke.

Charlotte Rush Brown, MD '45, and **David S. Brown, MD '45,** have used "long and rewarding practices and practical prostheses, potions, and parsimony" to escape from managed care into active retirements in their community. They are grateful to the interests, contacts, and community concerns developed during those years for keeping them "enjoyably active, well regarded, and, within the limits possible at 88, happy and healthy."

Warren G. Sarrell, MD '48: "I married in 1950 and have six children (two lawyers, two teachers, one optometrist, one nurse). I was

recalled into the Army in 1950 and had an aid station with the 21st Infantry, 24th Division, in Korea; I received the Combat Medal and Bronze Star. I came to Anniston, AL, in 1954, internal medicine and cardiology. Established the Anniston Medical Clinic, which eventually had 17 doctors (surgeons, ob/gyn, internal medicine, cardiology). Opened the first card cath lab in Alabama in 1972. I retired at 75. I've traveled all seven continents. Four years ago I established a Medicaid dental center for underprivileged children. Now we have five clinics throughout Alabama and last year saw 30,000 children ages 2–19. We are now the largest dental clinic in Alabama."

Allen Worrall, MD '48: "I am still practicing, doing mostly ob/gyn ultrasound now, and enjoying it very much. I am 84 years old. I enjoy good health. Have developed COPD from asthma and, I suppose, from the fact that I used to smoke a pipe and cigars. This led me to become interested in spirometry, and I have purchased a spirometer and am trying to learn to use it on myself. My COPD is mild and has responded well to the stuff I inhale every day. I've also been radiated for prostate cancer, but have no trouble with that."

1950s

Robert W. Greenwood, MD '50: "My wife and I, with a large assortment of pets of various kinds, continue to enjoy our secluded life in the hills of Tennessee, working hard on this large rugged property, enjoying all the crafts I have cultivated over the years, reading endlessly, and writing novels, essays, and memoirs. A quiet retreat of this nature for a period of reflection after a busy life is highly recommended."

William C. Porter Jr., MD '50: "My wife, Patti Ann, and I recently spent two weeks in Glenwood Springs, CO, with our daughter-in-law

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Burton C. West, MD '67, at a family gathering in north Georgia. They are seated in front of the creek where the movie *Deliverance* was filmed. According to Dr. West, the place is now "quite family friendly."



PROVIDED BY DR. WEST

and two grandchildren. Enjoyed rafting on the Colorado River, hiking, and swimming in the hot springs nearby."

Anne B. Johnson '48, MD '51: "I continue to enjoy retirement and have spent two months this summer with my husband, **Jack '48**, on Lake Winnepesaukee in New Hampshire at our island cottage. We have had visits there from our grandson and granddaughter (now both attending Pitzer College in California) and also from their mother, our daughter, and from our son. Last April I had the honor of receiving a plaque from the United Leukodystrophy Foundation thanking me for my important research on Alexander disease, a rare and fatal childhood leukodystrophy. Although a genetic disease, in most cases it is not inherited from the parents, but is a new mutation believed to originate in the germ cell of one parent, most commonly the father."

Alan Van Poznak '48, MD '52: "Retirement continues as busy as ever with much music activity—making CDs from the more than 2,000 tape recordings made during 20 wonderful years at St. Thomas Church (5th Avenue in NYC). Daughter **Catherine, MD '95**, is an oncologist at the University of Michigan, Ann Arbor. Granddaughter Marisa '01 is in a pediatric medicine residency at Brown Hospital, Providence, RI. We are grateful for every good day."

Peter R. Mahrer, MD '53: "Retired as chief of cardiology and director of cath labs and cardiology research at Kaiser Permanente, Los Angeles. Continue teaching and bedside care as clinical professor of cardiology at Keck/USC School of Medicine. Two sons are physicians in cardiology and pulmonary medicine."

William S. Augerson, MD '55: "Still ambulatory, oriented X3. Working a little, trying to be useful on the county board of health, local emergency planning, Rotary, annoying local politicians about water quality."

Cedric J. Priebe Jr., MD '55: "Retired from clinical practice of pediatric surgery and chief of the Division of Pediatric Surgery at

SUNY Stony Brook in July 2007. As a professor emeritus, I am now a part-time administrator in the Department of Surgery. I have been at Stony Brook for the last 26 years. My two pediatrician sons are active at Boston Children's Hospital and Women and Children's at Brown in Providence, respectively."

Mildred Moore Rust, MD '56: "I live in an assisted-living facility, a very good one, because of a potpourri of diagnoses. They are mostly under control, however, and I continue to drive and be active here in the community. I am 'pet columnist' for our in-house residents' newsletter. I'm working on a lecture series about how the brain functions in various circumstances. I have two PhD daughters: Paula, a sociologist, and Lynn, a microbiologist. Both work on exciting projects. Lynn and her husband, Eric, have two wonderful dogs. Paula and her partner have four children, ages 7–12. I am divorced."

John W. Casper, MD '57: "I returned to my home state of Idaho in 1959 with my wife, Edythe, and four children to practice general medicine as Bonneville County Physician and establish a county public health department. Seven years and two more children later, I began a three-year residency in psychiatry at the University of Utah, returning in 1970 as the first psychiatrist to practice in Idaho Falls. From 1970 to 2000, when I retired, I had a private practice in general psychiatry and psychiatric consultations and also served as clinical or medical director to other mental health facilities, some of which I helped establish. At the time of my retirement, I had been practicing in Idaho Falls longer than any other physician. Two subsequent back surgeries have slowed me considerably, but I am still able to ambulate and care for my yard. Edythe and I lost our oldest son in 2003 to a sudden heart attack, but we are fortunate to have three of our other children and a few grandchildren living near us. We both remember good times and good friends from CUMC and wish we had been able to attend reunion this year."

William H. Plauth Jr., MD '57: "All goes well here in Santa Fe. We

love retirement—miss the challenges of practice, but don't miss the responsibilities. Best wishes."

Alan B. Retik '53, MD '57: "I have spent my career at Children's Hospital Boston. I am stepping down as surgeon-in-chief, but remain as chief of the Department of Urology. Lynn and I are enjoying our 11 grandchildren."

Martin W. Korn '55, MD '58: "Phyllis (Shames) '57 and I are retired and spend almost half the year in Schroon Lake, NY, in the Adirondack Mountains. We climb, sail, play tennis, and serve on the boards of the Schroon Lake Association and the Seagle Music Colony. We go 'south' in the winter to Rochester, NY, where good theater and music (Eastman School of Music) attract us, as well as film, friends, and exercise activities. Our three children and seven grandchildren get much of our attention also."

Irwin R. Merkatz '55, MD '58: The Albert Einstein College of Medicine is establishing an endowment to honor Dr. Merkatz by creating the Irwin R. Merkatz, MD, Endowed Chair in Obstetrics & Gynecology. The endowment will also support the college's research and educational programs in women's health.

Jules R. Schwaber, MD '58: "Grateful to be enjoying good personal health; 52 years of happy marriage with wife, Evelyne, a psychoanalyst. Four wonderful sons, three wonderful daughters-in-law, nine grandkids—all adorable. Practicing internal medicine and primary care at Beth Israel-Deaconess Medical Center in Boston. Our best wishes to fellow alumni and their families."

Frederick W. Van Duyne '54, MD '58: "I am looking forward to completing 50 years in full-time family practice in 2010. The thrill and satisfaction of caring for patients for more than 40 years has not worn off. They do count on their 'PCP' to be there at the end. I always have patients in hospice that I visit and frequently, unfortunately, have funeral home visits as well. My hospitalized patients are cared for by 'hospitalists' and I make only 'social rounds.' My practice is now all adult medicine, 50 percent geriatrics. OB, pediatrics, and surgery have long disappeared (except for my 24 grandchildren, who all live in Michigan and whose parents call for advice at all times of the day and night). I am blessed with good health including a successful spinal fusion in April. My wife, Gloria, has owned and operated an upper-end gift and clothing store for the past 30 years."

1960s

Stebbins B. Chandor, MD '60: "Recently stepped down from presidency of USC's Retired Faculty Assn.; great way to meet people from all the other schools within the university."

Donald M. Ditmars Jr., MD '60: "After stepping down as division head of plastic surgery at Henry

Ford Health System this year, I found an amazing amount of time for teaching and writing. However, the new clinical research projects and my continuing patient load completely use up the workday. I still find time for fishing, bird hunting, sporting clays, photography, and travel with my wife, Anne."

Carl G. Becker, MD '61: "Retired as chair of Pathology and Laboratory Medicine at the Medical College of Wisconsin in June 2007. I am truly enjoying retirement. Activities include serving as a docent at the Milwaukee Art Museum, sailing, biking, rowing, trout fishing (including in Patagonia), and carpentry."

Andy Hedberg, MD '61: "I am retired from practice but continue to be on the faculty and the board of overseers of Rush University Medical College. As president emeritus of the American College of Physicians, I work on projects for the ACP. As always, we enjoy our Chicago life and now spend more time in Junia's hometown, Monterey, CA, particularly in the winter. We had the pleasure of visiting **Bill Newmeyer, MD '61**, and his wife, Nancy, at their lovely San Francisco home last February."

Donald Catino, MD '64: "I'm semi-retired now. Medicare reimbursement (lack of) drove me out of solo general medicine after 33 years. I'm now doing *locum tenens* work at Cape Cod Hospital, a combo of Bellevue and NY Hospital's 'Tower.' Next, to Tanzania to teach at Cornell's Bugando Hospital for six weeks, and then to New Zealand to do general internal medicine and geriatrics until May 2009. Then do it again."

Lawrence P. Levitt, MD '65: "The eighth edition of *Weiner & Levitt's Neurology* by Alexander Rae-Grant was just published by Lippincott Williams & Wilkins and has been translated into eight foreign languages."

David N. Tucker, MD '66, retired from the private practice of ophthalmology in Cincinnati in 2004. He is studying theology, Judeo-Christian philosophy and history, as well as Islam. He is a clinical assistant professor of ophthalmology at NYU and Bellevue in New York City. His wife, Lynda, works for a hospice in Connecticut. They have four children and eight grandchildren.

John A. Grossman, MD '67: "Sorry I missed our 41st Reunion. Regards to my classmates and hope that you're enjoying whatever it is that you are doing at this stage. I am still a full-time practicing plastic surgeon with offices in Denver, CO (80 percent), and Beverly Hills, CA (20 percent). My practice is limited to aesthetic plastic surgery. I practice in an office setting attached to Rose Medical Center in Denver, performing surgery in our ambulatory surgery center. In Beverly Hills, we have our multi-bed surgicenter within the office. I was for more than 20 years chairman of the Division of Plastic Surgery and am now emeritus

'Still ambulatory, oriented X3. Working a little, trying to be useful on the county board of health, local emergency planning, Rotary, annoying local politicians about water quality.'

— William S. Augerson, MD '55

chairman. I am director of Rose Aesthetic Fellowship, which offers postgraduate experience/training to board-eligible or board-certified plastic surgeons in aesthetic (cosmetic) plastic surgery. Still find every day in practice fun, stimulating, and challenging. Retirement is not currently on my horizon. On a personal level, my wife, Pam, and I have four daughters (three are mine; one is hers), ages 40, 38, 37, and 27, and eight grandchildren (so far). All are married with children except our youngest, who was recently married. This means that when we're not working, we're traveling to see our grandchildren. Whenever possible, we try to get in some golf and other forms of relaxation."

Burton C. West, MD '67: "Here is a photograph of our family of 20, the major focus of our lives for a long time (page 42). Right behind us is the large 'creek' in north Georgia where *Deliverance* was filmed, now quite family friendly. Having started ID in Shreveport and chaired a department of medicine along with directing the residency in internal medicine in Cleveland, we opted for family in moving to Knoxville a few years ago. Currently, I enjoy practicing medicine one-on-one as a hospitalist in Oak Ridge, TN. Katherine and I send greetings to all our Cornell friends, especially alumni and spouses. We regret not being at the reunion."

Ronald S. Rankin, MD '68: "I'm officially retiring from my radiology group (Mt. Medical Physician Specialists) in January 2009. I plan to see more of my five grandkids and the world."

Nicholas J. Hardin, MD '69: "Last year I took a big step and retired. Professor emeritus, hard to believe! What exactly one merits for getting to this point is unclear. I still attend some conferences and am keeping my medical license for now. It is hard to let go. But the increase in free time is wonderful."

Elaine Sarkin Jaffe '65, MD '69: "This has been a notable and busy year. Most significant, I was honored to be elected to the Institute of Medicine in October. In addition, my co-editors and I completed the 4th edition of the *WHO Classification of Tumours of the Haematopoietic and Lymphoid Tissues*, updating and expanding upon the previous WHO monograph published in 2001. My work for the WHO and the Int'l Agency on Cancer also includes serving as series editor for development of other monographs in this series devoted to the pathology and genetics of cancer. The series has been well received and fulfills its objectives of developing international consensus on the classification of tumors, thereby facilitating research on cancer. On a personal note, grandchild number five arrived, and sons Greg and Cale continue their successful careers in journalism and environmental law, respectively. Greg is on book leave from the *Wall Street Journal*, and with David Cloud, is co-authoring a book about the four Army generals—John Abizaid, George Casey, Peter Chiarelli, and David Petraeus—who have shaped the conduct of the Iraq War. Look for the book in 2009, to be published by Crown/Random House."

1970s

Francis V. Adams, MD '71: "I'm pleased to report that I've started a new career in broadcasting and now host 'Doctor Radio' on Sirius Channel 114 every Tuesday morning from 6 to 8. I also became a police surgeon for the NYPD in 2006. I still have my 'day job' and continue to practice pulmonary medicine in NYC."

Laurence R. Avins, MD '71, has retired from medical practice in St. Louis, MO, and is sailing more or less full-time aboard *Belle Rose*, soon to be en route to the Caribbean.

John T. Devlin, MD '77: "Diane and I still enjoy our life Down East. I'm getting back into research, having been funded to develop

a video intervention to promote physical activity in the Portland Somali community. Diane is still working as a pediatric nurse. Our daughter, Heather, started her second year of pediatrics residency at UNM. Our son, Sean, is finishing the second year of his doctoral program in biostatistics at the University of Washington."

Joseph S. Barone, MD '78: "My family and I reside in Old Saybrook, CT. In a move to leverage my 27-year career in support of new drug development, I have begun to consult under the name Alpha Research LLC. This group is providing consulting and access services to the biopharmaceutical industry, patients, and other interested parties. In addition to traditional consulting—e.g., development program strategy, clinical trial design, and report writing—we provide access services and consultation on product-related matters to patients as well."

Bart A. Kummer, MD '79: "I have joined NYU School of Medicine's new Trinity Center faculty group practice in the Wall Street area. My son, Ben, is a student at Drexel University School of Medicine, and my daughter, Tamara, is the spokesperson for the UN World Food Programme's office in Paris, France."

Paul A. Skudder, MD '79: "Mike Snyder, MD '79, and I met during the spring, sadly at the memorial service for Dr. Mary Allen Engle (pediatric cardiology). While the occasion wasn't a happy one, it was a pleasure to see Mike and hear that he and his family are doing well." Dr. Skudder is chief of vascular surgery and chief of staff-elect at Ellis Hospital in Schenectady, NY. He was elected vice president of the New England Society for Vascular Surgery at the annual meeting in October.

1980s

Anthony J. Cannon, MD '81: "I am now section chief of endocrinology at Robert Wood University Hospital in Hamilton, NJ."

Mae C. Jemison, MD '81, received the 2008 Eminent Black Chemical Engineer Award at the 100th anniversary of the American Institute of Chemical Engineers on November 17, 2008, in Philadelphia, PA.

Stuart J. Knechtle, MD '82: "Our family has moved to Atlanta, GA, and I have taken a new position as director of clinical transplantation and liver transplantation at Emory University School of Medicine."

Mary Nolan Hall, MD '83, chair of the Department of Family Medicine at Carolinas Medical Center, won the Peter Curtis Award, a new award that honors senior faculty who have contributed to the mentoring of junior faculty and to the development of the statewide department.

David Haughton, MD '84: "Four of my paintings from the *Kindertotentanz* series are in the exhibit 'Marriage of Art, Science, and Philosophy' at the American Visionary Art Museum in Baltimore, MD, which runs until September 2009."

Steven T. Berger, MD '85: "Life is busy both professionally and personally here in New England. My ophthalmology practice continues to be active with a surgical focus (pun intended) on corneal, cataract, and refractive surgery in Springfield, MA. My wife, Linda, remains busy as both mom and school nurse. Our three children (twin sons Matt and Alex and daughter Jillian) are growing up too quickly, and the boys are now applying for college as seniors in high school. Although busy and challenging, we wouldn't want our lives to be any other way. Enjoy keeping in touch with great medical school friends like **Roger Blumenthal, MD '85, John Papa, MD '85, Dave Blaustein, MD '85, Bob Hariri, PhD '87,** and others. My current e-mail is stbmd@cox.net."

Roger S. Blumenthal, MD '85: "Steve Berger, MD '85, and I met up at Foxboro Stadium to see the Hopkins lacrosse team upset top-seeded Duke on Memorial Day weekend. Steve's sense of humor is still superb. Our former physiology lab partner, **Bob Hariri, PhD '87**, is learning golf and has taken out insurance policies to protect fellow members at the Trump course in New Jersey."

Mark J. Albanese, MD '87, has just co-authored *Understanding Addiction as Self Medication: Finding Hope Behind the Pain* (Rowman & Littlefield). He is director of Addictions Treatment Services at Cambridge Health Alliance and assistant clinical professor of psychiatry at Harvard Medical School. He writes, "My other full-time job is helping to parent six children, ages 16 to 4."

George J. Makari, MD '87, associate professor of psychiatry at Weill Cornell, published *Revolution in Mind: The Creation of Psychoanalysis* (HarperCollins). The book was favorably reviewed in many publications including the *Financial Times*, *New York Times*, *New York Post*, *Australian Times*, *Times Literary Supplement*, *Literary*

Scott Rodeo, MD '89: "I served as US team physician at the Beijing Olympics. I ran medical care for swimming, diving, and synchronized swimming, so it was a great month. Actually, it's been a pretty good year as I also assist with medical care for the New York Giants, and we had a pretty good postseason."

Sarah A. Stackpole, MD '89: "I have relocated to my own office at 240 East 79th St. in Manhattan. I share the space with **Jennifer Levine, MD '95**. We practice ENT, but I focus on voice and sinus disorders while she excels at facial plastics. It's mutually complementary. I also teach in the first-year curriculum (interview skills) and added second-year physical diagnosis (head and neck) in October, both at Weill Cornell."

1990s

Michael L. Cooper, MD '90, became the director of the Jerome L. Finkelstein Regional Burn Unit at Staten Island University Hospital in May 2008.

S. Robert Rozbruch, MD '90: "I started the Limb Lengthening and Deformity Service at the Hospital for Special Surgery. We treat patients from across the country and the world with leg-length discrepancies, bony deformities, and bone loss. Patients have either congenital/developmental deformities or post-traumatic bone loss. Many of our cases are limb salvage. I'm an associate professor of clinical orthopaedic surgery at Weill Cornell. I edited the textbook *Limb Lengthening and Reconstruction Surgery* and am on the executive board of the Limb Lengthening and Reconstruction Society. I love road biking and hanging out with my wife and kids, Jason, 14, and Libby, 1."

Carolyn S. Eisen, MD '91, is a radiologist specializing in breast imagery at NewYork-Presbyterian Hospital/Weill



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Review, *JAMA*, and *JAPA*. Dr. Makari lectured on the book at Cambridge University, the Wellcome Institute for the History of Medicine, the Sigmund Freud Museum, and New York University.

Ann Rogers '82, MD '87: "After graduating from medical school, I completed a surgical residency at St. Luke's-Roosevelt Hospital Center in New York City and stayed on as an attending in surgery and surgical critical care for several years. In 2002, I took over as director of that residency program and stayed in that position until 2006. Then I refocused my practice, which until then consisted of general and breast surgery; in the 2006-07 academic year I took a fellowship in minimally invasive bariatric surgery at the Penn State Surgical Weight Loss Program, and that is my current capacity. I and my husband, **Robert Bauchwitz, PhD '86, MD '91**, and our two teenage sons, Ben and Jeremy, are really enjoying our new lifestyle in Hershey."

Cornell Medical Center. "My husband, **Mark Schwartz, MD '84**, a plastic surgeon, is on staff at the same hospital and also has a private practice. We live in Manhattan with our two daughters, Rebecca, 5, and Alexa, 3."

Maria D. Shiau, MD '93: "I am an assistant professor at NYU Langone Medical Center's Department of Radiology. My specialty is cardiothoracic imaging."

Michael Rinaldi, MD '94: "Since finishing residency and fellowships in interventional cardiology and vascular medicine, my wife, Mariangela, and I moved to Charlotte, NC. I joined one of the larger cardiovascular groups in the country, the Sanger Clinic, and am the director of clinical research and of the vascular invasive lab for the system. We are primarily a private practice, but I do a moderate amount of academic work. We have three children: Christopher, 7,

'We moved to Boston in the summer of 2006.... Despite being avowed New Yorkers, we have all been happy here.'

—Darren Orbach,
MD '98

Sofia, 5, and Nicholas, 2. We are happy in Charlotte, which has seen tremendous growth but remains a great city in which to raise a family."

Todd Gorman, MD '96: "I finished my residency in Boston in 1999. Since then, I married Nathalie Turgeon (an ID doc from Quebec City whom I met in Boston), completed a critical care medicine fellowship in Montreal, learned French, moved to Quebec City, and fathered three magnificent children: Emma, 7, Noah, 5, and Jacob, 1. We live on Lac Beauport, 20 minutes north of Quebec City and enjoy outdoor life year 'round. I work in internal medicine and ICY at L'Hotel Dieu de Quebec, where Nathalie also attends. My most significant professional accomplishment so far (in my opinion) is having won the best clinician-teacher award my first year here in Quebec, voted by all of the university's internal medicine residents. I guess they understood my French. We are happy here. I have been woefully out of touch with my classmates from Cornell, but would love to hear from people, especially my two former roommates and **Kavita Aggarwal, MD '96.**"

Eric C. Burdge, MD '98: "I am helping to resume the general surgery residency program at Keesler Medical Center. I am operating out of the Balad Air Base in Iraq. Your prayers for safety are welcomed."

Amelia Burgess, MD '98: "**Aaron Milbank, MD '98,** and I live near St. Paul, MN, with our beautiful sons Isaiah, 7, and Sam, 5. After his urology residency, Aaron completed a fellowship in male fertility at the Cleveland Clinic. He is a partner in

Metro Urology, an independent urology practice that serves the Twin Cities and its suburbs. I am in a primary care pediatrics fellowship through which I have earned an MPH and focused my practice on the health of children in foster care. In September, I began working at the East Side Family Clinic, a federally qualified community health center, where I practice general pediatrics, focusing on mental health in a primary care setting, and the development of a medical home for children in foster care and families investigated by child protective services. I'm also making plans to work again in Haiti. The year I spent living in Haiti, working at the GHESKIO Center in Port-au-Prince with **Bill Pape, MD '75,** and his excellent colleagues, changed my life and my approach to medicine—all in good ways. When I returned, I ended up living next door to Aaron and was assigned to be a fourth-year advisor with him and **Avram Mack, MD '98.** That worked out well for me."

Darren Orbach, MD '98: "Trying to keep up with my kids, Gabriella, 11, Nate, 9, and Leo, 3. Biking and skiing (usually with the kids). During rare opportunities with a few quiet moments, reading nonfiction. We moved to Boston in the summer of 2006 when I took a job in neurointerventional radiology at Children's Hospital Boston and Brigham and Women's. Despite being avowed New Yorkers, we have all been happy here."

Paul Simic '90, MD '98: "Our third baby, Audrey, was born in early October, so I wasn't able to make the reunion. My best to everyone back in NYC."

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2000s

Suena Huang, MD '02, married William J. Massey IV in Georgetown (Washington, DC) this past July. She is an assistant professor of psychiatry at the George Washington University School of Medicine.

Lisa A. Mills, MD '02, is a clinical research scholar in infectious diseases at Johns Hopkins. She spends most of her time in Uganda, where she helps run an HIV treatment and research cohort. She has also been involved in public health media campaigns promoting adult male circumcision for HIV prevention, using hip-hop/reggae music to spread the word. She founded a charity and welcomes contributions for urgent health-care funding for rural HIV patients requiring inpatient/specialized care. Her e-mail is LisaAMills@hotmail.com.

Ameet Singh, MD '02: "I returned from a five-year residency in Rochester, NY (brrrr), to Weill Cornell for a one-year fellowship in rhinology and skull base surgery. It was great to be back and see lots of my old classmates. I just started an academic position at George Washington University in DC as faculty in otolaryngology and skull base surgery. My son, Rohan, is 2 and talking like a grown man, and

my wife and I love our new phase in life."

Jennifer E. Cho, MD '04: "I completed my residency at Johns Hopkins Hospital in obstetrics and gynecology last June and am in a one-year fellowship program for laparoscopy and minimally invasive surgery with Dr. Farr Nezhat at St. Luke's-Roosevelt Hospital and Mercy Medical Center. Afterwards, I am hoping to work in an academic center in either New York or California and am searching for jobs. I recently married and am enjoying married life. Contact me at chojenne@hotmail.com."

Aasim Padela, MD '05: "I have moved on to the University of Michigan as a Robert Wood Johnson clinical scholar and clinical emergency medicine attending. At Michigan I am conducting research into health-care disparities and cultural and clinical accommodation for Muslim and Arab patient populations."

Neil Pravin Shah, MD '07: "Vinnie Kathpalia Shah, MD '07, and I were married on August 3, 2008, in Pearl River, NY. In attendance were **Nick Leaver, MD '07, Smrita Sinha '03, MD '08, Andrew Graustein, MD '08, Maya Katz, MD '07, Justin McClain, MD '07, Josh Hagen (MD/PhD candidate), Carolyn Maxwell Prego, MD '07, Debi Mitra '01, MD '07, Aaron Flanders, MD '07, and Anuj Mehta, MD '07.**"

In Memoriam

'33 MD—**Leon H. Ehrlich** of Jamesbury, NJ, October 6, 2008; ophthalmologist.

'34 BA, MD '38—**Norman D. Thetford** of Eatontown, NJ, November 16, 2008; surgeon and general practitioner; served with the Public Health Service in the US Virgin Islands; philatelist; active in alumni affairs. Wife, Meda (Young) '35.

'35 BA, '39 MD—**Henry S. Berkan** of Floral Park, NJ, August 30, 2008; radiologist. Sigma Alpha Mu.

'40 MD—**Lamson Blaney** of Somerset, MA, August 15, 2008.

'41 MD—**Robert P. Worden** of Fleming, NY, October 22, 2008; chief of surgery, Mercy Hospital and Auburn Memorial Hospital; physician, General Electric; veteran; active in civic, community, and professional affairs.

'40 BA, '43 MD—**Matthew O. Locks** of Long Beach, CA, June 3, 2008; medical consultant; active in alumni affairs.

'43 MD—**Bruce R. Valentine** of Abington, CT, August 23, 2008; head of ob/gyn dept., Day Kimball Hospital; helped establish the Eliza F. Clark Memorial Center; school physician for Pomfret, Eastford, and Ashford school systems; asst. state medical examiner; veteran; active in civic, community, and professional affairs.

'45 MD—**David Hoffman** of Rochester, MN, September 5, 2008; associate professor of internal medicine, Mayo Medical School, Mayo Clinic; former chief of internal medicine, VA Hospital, Albany, NY; veteran; youth hockey coach; active in civic, community, professional, and religious affairs.

'49 MD—**Glenn G. Golloway** of Ypsilanti, MI, September 1998.

'50 MD—**Robert H. Burgoyne** of Salt Lake City, UT, June 2, 2007; retired physician; active in alumni affairs.

'50 MD—**Peter Richter** of Garrison, NY, and New York City, September 1, 2008; psychoanalyst; faculty member and former VP and chair of the education committee, New York Psychoanalytic Institute; veteran; active in community and professional affairs.

'54 MD—**John R. Slattery** of Norwood, NJ, July 19, 2008.

'56 MD—**Thomas W. Cook** of Carlsbad, CA, May 28, 2008.

'51 BA, '56 MD—**Nancy Ripley Rost** of Baldwin, NY, October 25, 2008; retired psychiatrist; assistant director, aftercare services, Zucker Hillside Hospital; one of the first women to graduate from WCMC; active in professional and religious affairs.

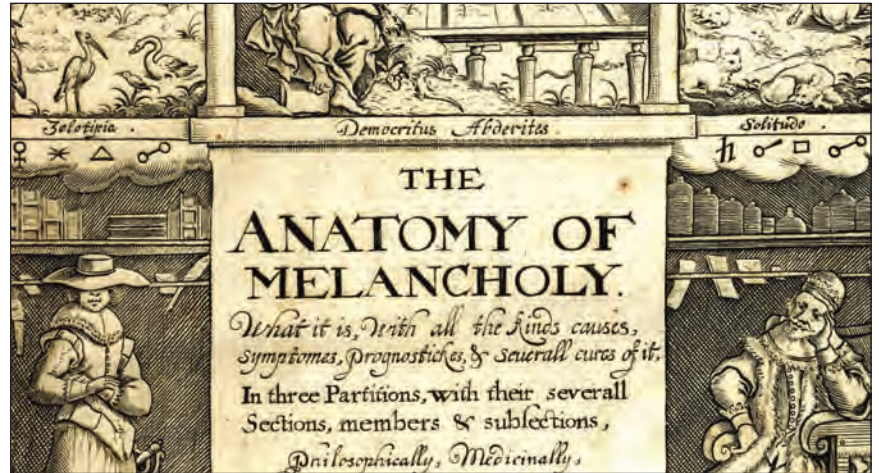
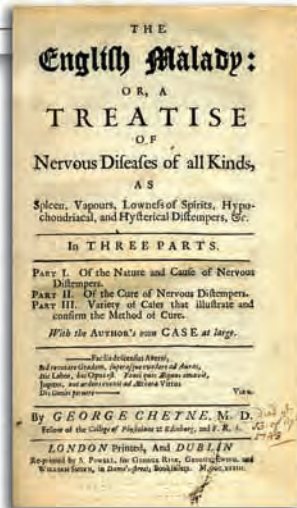
'61 MD—**Brack G. Hattler** of Pittsburgh, PA, July 31, 2008; Katherine DuRoss Ford Chair of Cardiothoracic Transplantation and professor of surgery, University of Pittsburgh Medical Center; director, medical devices and artificial organs research program, McGowan Institute for Regenerative Medicine; developed an intravenous membrane oxygenator; co-developed the Hattler Catheter; former chief of the Army organ transplant service at Walter Reed Army Medical Center; former associate professor of surgery, U. of Arizona; also practiced cardiothoracic and vascular surgery at Porter Memorial Hospital in Denver; active in community and professional affairs.

Brain Trust

From witchcraft to Prozac, a Weill Cornell institute chronicles the history of psychiatry



INSTITUTE FOR THE HISTORY OF PSYCHIATRY



On the twelfth floor of NewYork-Presbyterian Hospital/Weill Cornell Medical Center, researchers can find books written in fifteen languages over seven centuries, dating back to the invention of movable type. The books comprise the Oskar Diethelm Library, part of Weill Cornell’s Institute for the History of Psychiatry. This unique collection houses more than 50,000 volumes and 360 journals, as well as the archives and personal papers of many prominent psychiatrists and institutes. Its diverse holdings range from the archives of the American Psychoanalytic Association to the writings of Clifford Beers, founder of the National Committee for Mental Hygiene. Today, Beers would be diagnosed as bipolar, but when he was hospitalized in 1897 he was simply deemed insane. During his manic periods he wrote prolifically, tearing up his bedsheets when he ran out of paper—and those sheets are now in the library’s collection.

The library’s oldest books were written in the fifteenth century. They focus on madness, witchcraft, and the attempted medical treatments thereof—the “pre-history” of psychiatry, as the institute’s director, George Makari, MD ’87, calls it. One of the volumes, *Malleus Maleficarum* (*The Hammer of Witches*), was written by a pair of Catholic Inquisitors in 1492, detailing methods for discovering and convicting witches. Makari says that most of the library’s patrons don’t use these ancient works, but he explains that the institute’s goal is to have as complete and comprehensive a collection of psychiatric works as possible. “The advantage of this library is how specialized it is,” says Makari, an associate professor of psychiatry at Weill Cornell. “There is simply no better collection on the history of psychiatry.”

In addition to housing the library and aiding researchers, the institute aims to actively encourage the study of psychiatric history, Makari says. To that end, it hosts lectures and sponsors working groups on topics like the history of neuroscience and psychoanalysis in the arts. The Institute for the History of Psychiatry was founded fifty years ago by Eric Carlson, MD ’50, who served as its first director, and psychiatry department chairman Oskar Diethelm, MD, whose private library helped to form the beginnings of the collection. The institute is open only by appointment, Makari notes, so it doesn’t get the traffic of a public library—but that does not diminish its importance. “What we get are the people who write the books in the field,” he says, “and those books end up being read by large numbers of people and affecting the broader culture.” ●

— Ian Holliday

Collected works: The Institute for the History of Psychiatry houses manuscripts and images describing treatment for mental illness over the centuries.

When Dr. Charles Rupert Stockard died in 1939, an anonymous friend established a scholarship to honor his memory...

In 2004, Dr. Stockard was again honored— this time, through his daughter's estate.

Dr. Charles R. Stockard's love of science began in his youth. He was fascinated with birds and fish. He joined Cornell Medical College in 1906 as an assistant professor in Embryology and Histology. In 1908, he became an instructor in Comparative Morphology and quickly rose to the appointment of Professor of Anatomy in 1911. He served as one of the most distinguished faculty members at the Medical College, where he focused his studies on the biological development of the human body. Known for his humor and the clarity in his lectures, every student who walked through the doors of his classroom was infused with his love for science.

In 1939, an anonymous gift was made to honor Dr. Stockard's legacy, and the interest from this gift provides scholarship support for a student at the Medical College. Marie Louise Cullinan, as a loving tribute to her father, created a bequest in 1995 that would extend the opportunity for more students to study at Weill Cornell. In 2004, Weill Cornell received the funds enabling four additional students to receive scholarships. This gift will help to ensure the education of the best and the brightest for future generations to come.



*The Stockard family in Germany in 1930.
(L to R) Marie Louise, two cousins,
Mrs. and Dr. Stockard.*

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