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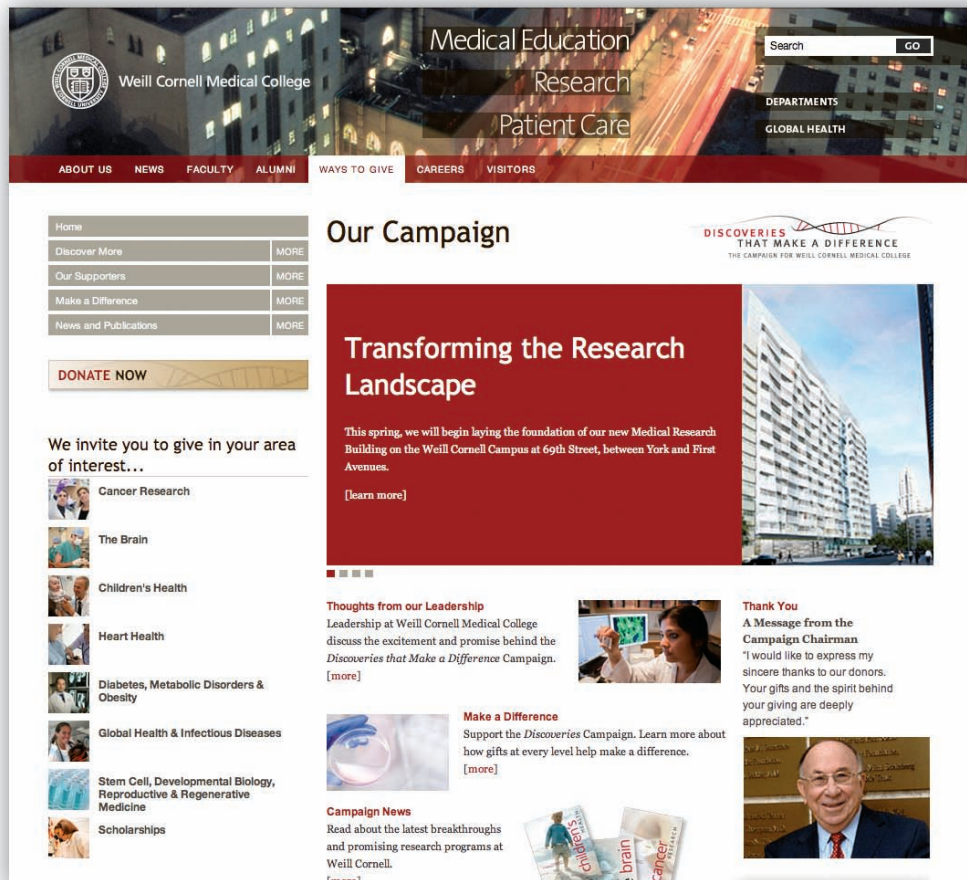


THE MAGAZINE OF
WEILL CORNELL
MEDICAL COLLEGE AND
WEILL CORNELL
GRADUATE SCHOOL OF
MEDICAL SCIENCES

SPRING 2010

From dancers to divas, piano prodigies to pop stars, a Weill Cornell center offers specialized care for artists

Command Performance



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Discoveries that Make a Difference

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Learn about the exciting research at Weill Cornell Medical College.

Read about the generous donors supporting our new Medical Research Building and their latest gifts to the Medical College.

Find out how you can help advance medicine and enhance health by giving to research at Weill Cornell.

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Weill Cornell Medical College

weillcornellmedicine

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6

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BETH SAULNIER

At Weill Cornell's Center for the Performing Artist, pros in a variety of fields can find comprehensive care. Established in 2008, the Center offers the expertise of some thirty specialists—treating conditions that may seem arcane to laypeople, but can threaten a career.

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ANNA SOBKOWSKI

Ten years ago, the Medical College graduated its first class trained in a problem-based curriculum, a radical departure from traditional medical education. *Weill Cornell Medicine* checks in with Class of 2000 alumni, who reflect on their roles in the vanguard of a new era.

38 THE HARD PART

BETH SAULNIER

More medical schools are teaching new MDs how the American health-care system actually works. Weill Cornell is ahead of the curve; it has long required fourth-years to take a two-week clerkship in health policy, offering insights into such topics as Medicare and prescription drug costs.

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Our Global Mission

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



AMELIA PANICO PHOTOGRAPHY

Foreign relations: Tanzanian President Jakaya Kikwete (left), Dean Gotto, and Weill Cornell Director of Spinal Surgery Roger Härtl, MD.

I had the honor and pleasure of meeting His Excellency President Jakaya Kikwete of the United Republic of Tanzania on April 16. President Kikwete came to Weill Cornell at the invitation of students in our Global Health program to speak at a Grand Rounds about the significant health-care challenges facing Tanzania.

President Kikwete did not mince words when explaining the realities of health care in his country: one doctor for every 2,000 citizens in a country of 43 million people; more than 1,400,000 people, 10 percent of them children, living with HIV/AIDS; close to 100,000 deaths each year from AIDS; and the disturbing reality that deaths from curable diseases such as malaria and dysentery are commonplace.

What struck me most about President Kikwete was his genuine concern for the people of Tanzania. He demonstrated this concern when he and his wife took the bold step of undergoing HIV tests on national television to destigmatize testing and promote public health. While this may seem almost passé in our modern culture, it was a monumental step forward in Tanzania, where suspicion over HIV testing and treatment is rampant.

President Kikwete also made clear his eagerness to bring high-quality medical education to Tanzania so its citizens can study to become doctors and nurses and, in time, treat their fellow Tanzanians. “Most certainly I can appeal to you, and to other prosperous countries around the world, to send us doctors and nurses,” he said. “As helpful as that would be, it is only a temporary solution. We need medical schools in our own country so that our young people can train to become doctors and nurses. This is the only way our country can have a chance at long-term survival.”

I assured President Kikwete that Weill Cornell is committed to teaching and practicing medicine in a global context, and that we cherish our relationship with the people of Tanzania and the learning opportunities that have grown from our collaborative work at Weill Bugando University College of Health Sciences and Kilimanjaro Christian Medical Center, where many of our students spend a summer rotation. While there may be a temptation to imply that they are merely privileged medical students spending a summer in Africa to “help out,” this is most definitely not the case. Returning students tell me what a life-changing experience it is to practice medicine in less-than-ideal conditions—discovering that without MRIs or lab tests, they must depend on their Weill Cornell training to help their patients. It is literally life and death in many cases, and that experience changes them for the better.

One thing is certain: enhancing the visibility of global health at Weill Cornell reinforces the message that the fusion of social justice and medicine is not just a casual pursuit, but a legitimate concern for tomorrow’s doctors and medical leaders. As I told President Kikwete, we are committed to helping our neighbors, both next door and around the world.

Building for the Future

The end of the academic year is always greeted with enthusiasm at an institution of higher learning, as students and faculty conclude their work and look forward to a little relaxation and reflection.

This year, however, the faculty and staff of Weill Cornell Medical College and Graduate School of Medical Sciences are looking forward to something much more exciting than a few weeks off. On May 26, Weill Cornell changed the landscape of scientific discovery by breaking ground on its new Medical Research Building. Located on 69th Street between York and First Avenues, this 480,000-square-foot facility will have sixteen program floors and become the hub for significantly expanded bench-to-bedside research initiatives.

With this one facility, Weill Cornell doubles its current research space—a level that took 100 years to attain. The pace of research will now be accelerated; breakthrough treatments that will save lives and the prevention of disease will be within our grasp. The leading minds who will usher in these breakthroughs will be attracted to Weill Cornell because of this tremendous capital improvement. Initially, thirty new scientists will be recruited to work in this building, fostering further collaboration with Ithaca and other institutions around the world.

But Weill Cornell is hardly erecting an ivory tower of biomedical education. The very business of science is to identify and solve some of the world's most complex problems. That noble calling cannot be fulfilled if researchers are locked away from the world they are trying to help. So, as excited as I am about the new Medical Research Building, I am just as thrilled when our graduate students act as ambassadors of science for the next generation of researchers.

For example, PhD candidates Romulo Hurtado and Steven Lianoglou recently led David Coneely's eleventh-grade advanced biology classes at Brooklyn International High School in an exciting experiment. It focused on transforming bacteria with a Green Fluorescent Protein (GFP) plasmid under the control of a sugar-inducible gene switch, which related to the topics of bioengineering and transcriptional regulation that the students had recently learned about in class.

The session started with Lianoglou giving a brief lecture on the history and functions of GFP and how it relates to gene switching. He and

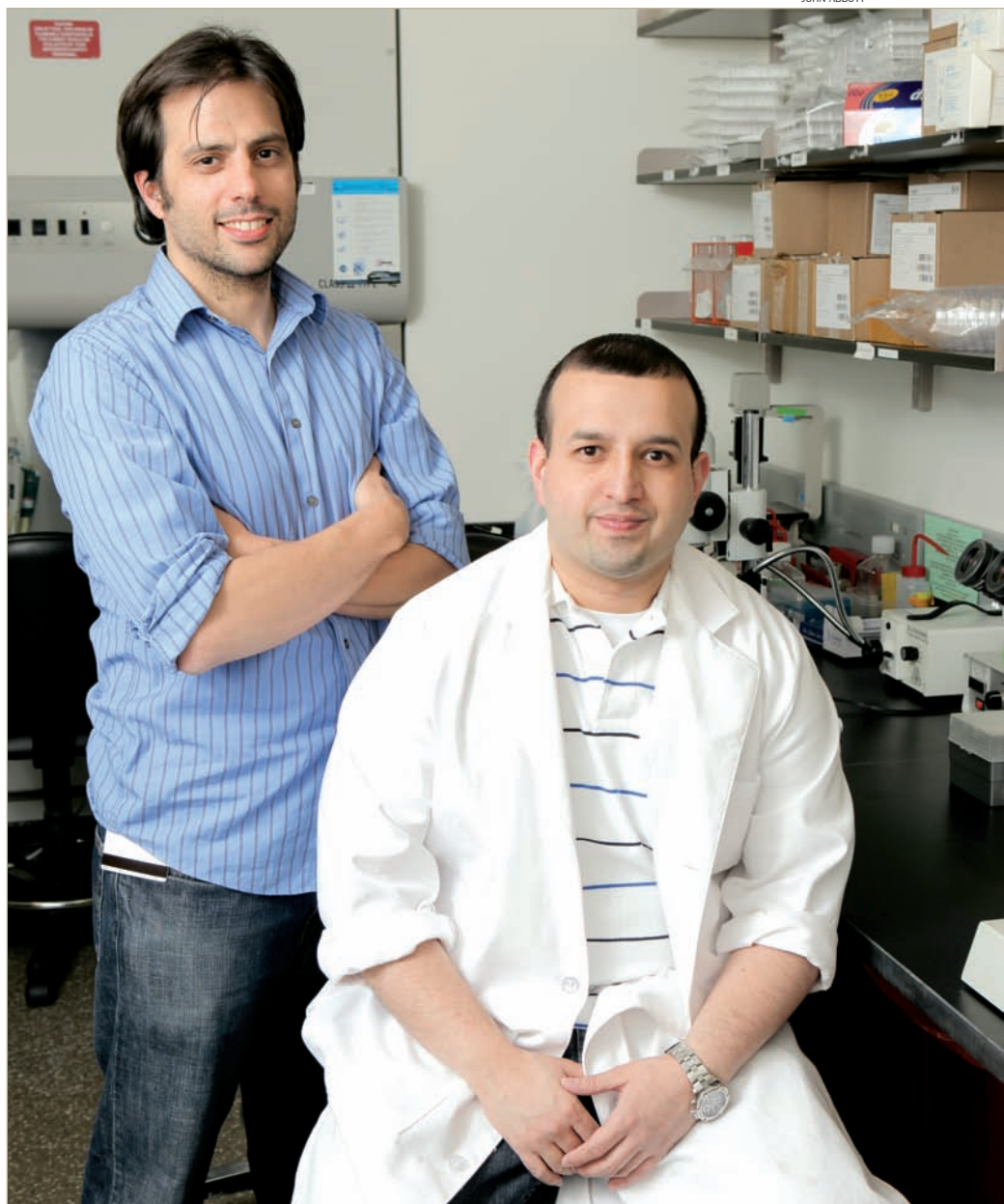
**David P. Hajjar, PhD,
Dean of the Graduate
School of Medical Sciences**

Hurtado stressed that this was a chance for the high schoolers to put science to use. "Today you will get to work with something someone won't get the Nobel Prize for," Hurtado told them. "You can go home and say, 'I worked with GFP today.'"

On 69th Street, Weill Cornell is building the research building of the future. And in Brooklyn, David Coneely and his fellow teachers are training the next generation of scientists. It is that combination of premier facilities and human brainpower that will enable us to discover new and better ways to treat disease, relieve human suffering, and save lives.

Next generation: Grad students Steven Lianoglou (left) and Romulo Hurtado led an eleventh-grade biology class.

JOHN ABBOTT



Discoveries that Make a Difference

The three researchers featured here are among those at Weill Cornell Medical College offering profound hope to patients diagnosed with some of our most daunting diseases. The College's Discoveries that Make a Difference Campaign is focusing on bench-to-bedside translational research that promises to lead to breakthroughs in prevention, treatment, and even cures. The heart of the Campaign is the new Medical Research Building that will double our research space and make possible even more collaboration among scientists such as these.



'I fully expect these approaches to revolutionize the diagnosis and treatment of cancer.'

ARI MELNICK, MD
Associate Professor of Medicine,
Division of Hematology and
Medical Oncology,
Director, Raymond and Beverly Sackler
Center for Biomedical
and Physical Sciences

THE PROMISE OF PERSONALIZED CANCER TREATMENT

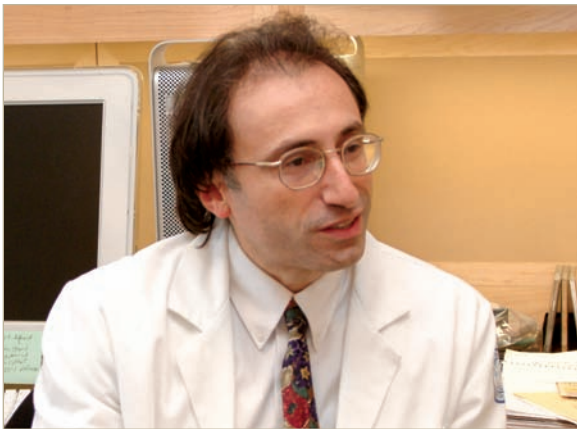
While practicing as a clinical oncologist, Ari Melnick, MD, grew frustrated by the limitations of chemotherapy. Now working with a multidisciplinary team of scientists under his leadership as director of Weill Cornell's Raymond and Beverly Sackler Center for Biomedical and Physical Sciences, Melnick focuses on individualized therapies based upon a tumor's particular biology.

Cells contain complex commands—called “epigenetic” instructions—beyond the genetic code, and unlike the DNA sequence, the epigenome can change in response to such factors as age, food, chemicals, and inflammation. Human tumors harbor extensive epigenetic abnormalities, which may explain why tumors behave differently from normal tissues.

Working under this premise, Melnick and his colleagues recently identified a molecule necessary for the functioning of a protein, called BCL-6, that causes the most common type of non-Hodgkin's lymphoma. “BCL-6 mediates its cancer-causing actions by attaching to other proteins,” says Melnick. “Traditionally, protein-protein interactions have been viewed as being too difficult to block with small-molecule drugs.”

Melnick's team identified a critical “hot spot” offering promise for designing an effective drug and then created an inhibitor specific to the BCL-6 protein. The compound represents a new class of drugs. In animal trials, Melnick says, “we observed almost complete tumor regression.” It was also non-toxic and significantly prolonged survival.

“This means that if given as a therapeutic agent, the compound would be unlikely to have ill effects on healthy normal cells, and therefore would not be expected to have significant side effects,” Melnick says. And since emerging data implicates this protein in other tumors, this new class of drugs could benefit many patients beyond those with non-Hodgkin's lymphoma. “I fully expect these approaches to revolutionize the diagnosis and treatment of cancer in the near term, and lead to more potent and less toxic treatments,” he says.



'This study will have a major impact on the treatment of any blood-related disorder that requires a stem cell transplant.'

SHAHIN RAFII, MD
Arthur B. Belfer Professor in Genetic Medicine, Professor of Medicine, Director of the Ansary Stem Cell Institute, Howard Hughes Medical Institute Investigator

A STEM CELL BREAKTHROUGH

Shahin Rafii, MD, developed the groundbreaking concept that both tumors and organs recruit stem cells hibernating in the bone marrow in order to build new blood vessels.

This spring—on the road toward making stem cell therapy widely available—Rafii announced that his lab had discovered a way to culture adult stem cells by using endothelial cells, the vascular system's most basic building blocks. The researchers also discovered that endothelial cells could not only propagate stem cells but instruct them to create differentiated forms, such as immune cells, platelets, and red and white blood cells. "This study will have a major impact on the treatment of any blood-related disorder that requires a stem cell transplant," says Rafii, the Arthur B. Belfer Professor in Genetic Medicine, Director of the Ansary Stem Cell Institute, and a Howard Hughes Medical Institute Investigator.

Rafii's research sets forth the innovative concept that blood vessels are not just passive conduits for delivery of oxygen and nutrients, but are also programmed to maintain and proliferate stem cells and their mature forms in adult organs. Rafii says these advances "establish a new arena in stem cell biology" and "highlight the potential of vascular cells for generating sufficient stem cells for therapeutic organ regeneration, tumor targeting, and gene therapy applications."

HOPE IN THE BATTLE AGAINST ALZHEIMER'S

By establishing a link between vascular health and neurological disorders, Costantino Iadecola, MD, is turning current understanding on its head and laying the groundwork for new ways to diagnose and treat stroke, dementia, and Alzheimer's. "There's an interesting revolution going on," says the George C. Cotzias Distinguished Professor of Neurology and Neuroscience. "The world is kind of turning upside down."

Iadecola and his neurobiology research group, now located in Weill Cornell's newest laboratory facility, the Gertrude and Louis Feil Family Research Building, were the first to discover that whenever something threatens the cerebral blood supply, such as hypertension or an injury, it increases the brain's susceptibility to neural diseases. "We found that even before the neurons start to suffer in these mouse models of Alzheimer's, the blood vessels of the brain stopped working correctly," Iadecola says. "So this suggests that the blood vessels play a role in Alzheimer's—not as a consequence of neuronal problems, but as a primary event. It's the blood flow that comes first, especially at the onset of the disease, when treatments have the greatest chance of success."

The major implication of his work—that Alzheimer's is not just a disease of neurons—has enormous potential for treatment and prevention. "If you want to prevent it," says Iadecola, "you need also to prevent blood vessel problems, because that's part of the cause."



'There's an interesting revolution going on. The world is kind of turning upside down.'

COSTANTINO IADECOLA, MD
George C. Cotzias Distinguished Professor of Neurology and Neuroscience

For more information on opportunities for giving to the Campaign, please contact Lucille Ferraro, Campaign Director, at 646-962-8721 or at luf2003@med.cornell.edu.

Please visit our web site at www.weill.cornell.edu/campaign

DISCOVERIES
THAT MAKE A DIFFERENCE
THE CAMPAIGN FOR WEILL CORNELL MEDICAL COLLEGE



Weill Cornell Medical College

Light Box

Student bodies: On Accepted Student Revisit Weekend in April, prospective members of the Class of 2014 got a closer look at the Medical College as they decided whether to accept Weill Cornell's offer of admission. Their stops included the Gross Anatomy lab, where they watched dissections—some even opted to wield a scalpel—and got a tour from associate professor of clinical anatomy Estomih Mtui, MD.

AMELIA PANICO PHOTOGRAPHY





At Global Health Grand Rounds, Tanzanian President Chronicles a 'Daunting' Task



AMELIA PANICO PHOTOGRAPHY

Aid for Africa: President Jakaya Kikwete told his audience that the key to improving medical care in developing nations is for the countries to train more native-born health professionals.

The president of Tanzania visited Weill Cornell in April, describing his nation's health-care achievements and challenges in a Global Health Grand Rounds Lecture. "Medical supplies as simple as bandages, gloves, syringes, sterile needles, and many others which you take for granted here in America are scarce," President Jakaya Kikwete told his listeners. "This complicates the work of health practitioners and affects the quality of the services they lend." Kikwete has worked to make quality health care available to people in developing countries; in an effort to destigmatize HIV testing, he even took the unusual step of being screened for HIV on national television. As he told his audience, many hurdles remain to improving care in the developing world. "There aren't many medical schools to train doctors, or nursing schools to train nurses and other health professionals," said Kikwete. "Sadly enough, the few that we have don't enroll many students. It

follows therefore that the challenge of closing the gap of health professionals is daunting indeed."

The Medical College has especially close ties to one of the few institutions that train health-care professionals in Tanzania: Weill Bugando University College of Health Sciences, which graduated its first MDs in 2008. Its founders include Father Peter Le Jacq, MD '81, a physician and Maryknoll priest, and it is named in honor of Medical College foremost benefactor Sanford Weill. Numerous Weill Cornell students have gained clinical and research experience at the College's affiliated Bugando Medical Centre as well as the nation's Kilimanjaro Christian Medical Center. "The problems facing Tanzania are not ours alone," Kikwete said. "They are humanity's challenges, but through the relationships and partnerships we've built here at Weill Cornell and elsewhere, we are facing and overcoming those challenges."

Gates Foundation Honors GHEKIO With \$1 Million Prize

The Bill and Melinda Gates Foundation has given its 2010 Gates Award to the Weill Cornell-affiliated GHEKIO clinic in Haiti. The honor, which recognizes the clinic's efforts to aid earthquake survivors, carries a \$1 million prize. The winner was chosen from 179 nominees by a jury of international health leaders.

"No organization deserves this recognition more than GHEKIO," U.S. Health & Human Services Secretary Kathleen Sebelius said at the announcement, during a World Health Assembly symposium. "It has been a pioneer in developing comprehensive HIV/AIDS research, training, and services in Haiti. And in the immediate aftermath of the January earthquake, GHEKIO responded by opening its doors, mobilizing its staff, and working side by side with U.S. medical and surgical teams to provide relief to the people of Port-au-Prince."

While the devastation from the earthquake has largely faded from the daily news, GHEKIO has continued to help refugees while maintaining treatment of its regular patients. In the weeks following the disaster, GHEKIO aided some 7,000 homeless Haitians camped on and near its grounds in downtown Port-au-Prince, offered emergency surgery and rehabilitation care to 3,000 trauma victims, provided TB screening and treatment for 2,000 people, and continued HIV services for 22,000 patients. The clinic has been updating the Weill Cornell community via reports on the website of the Department of Global Health (weill.cornell.edu/globalhealth), which has been raising funds for the ongoing relief effort.

"On the GHEKIO campus, we have provided basic necessities including shelter, security, nutrition, water, sanitation, education, jobs, and primary medical care," the clinic announced in its March 22 update. "Every family now has a tent and clean water. Each person has been vaccinated, and we screen everyone in the camp daily for signs of communicable disease, and provide primary health-care services." The clinic has also offered supplementary food to pregnant women and children under five and provided residents with employment opportunities such as digging drainage ditches and collecting garbage.

GHEKIO has been fighting a constant battle against the spread of multi-drug-resistant TB, a major concern given the city's crowded living conditions and the difficulty of keeping patients on treatment regimens amid the chaos of the rebuilding effort. "A measure of success of the GHEKIO 'refugee camp' will be the speed with which we return people back into their own, ideally healthier, communities and close the camp," the clinic said in the update, noting that most residents came from the 100,000-person Village of God neighborhood across the street. "As we rebuild, we will improve the health of the entire neighborhood by improving nutrition, clean water, sanitation, and education."

GHEKIO was founded in 1982 by Jean Pape, MD '75, a native Haitian who is now a professor of medicine, and his mentor, infectious disease professor Warren Johnson, MD. "It started with a rehydration unit for infants, progressed to AIDS/TB, and continues with the earthquake and its devastation," says Johnson, director of the Weill Cornell Center for Global Health. "The challenges never diminish, but continue to be met by the indomitable spirit of GHEKIO and its partners. The award is a hard-earned honor."

International Affairs Office Established

Dean Antonio Gotto, MD, has announced the establishment of an Office of International Affairs, whose mission is "to identify and create opportunities to expand Weill Cornell's tripartite mission globally." The Office will be guided by a business advisory board comprising the Overseer Committee on International Affairs, led by Ambassador Hushang Ansary, and a medical advisory board, made up of key leaders in academic medicine and global health. Jeanie Faulkner, assistant secretary of the Board of Overseers, will lead the Office's administrative and operational components. "During the remainder of this academic year and into summer, I have asked Ms. Faulkner to initiate plans for the Office, including a survey and a number of small group meetings, in order to identify interests and ideas for expanding our global mission," Gotto announced. Members of the Weill Cornell community are encouraged to e-mail their ideas on strengthening the Medical College's global outreach to internationalaffairs@med.cornell.edu.



WARREN JOHNSON, MD

Temporary homes: The refugees at GHEKIO have been provided with tents, clean water, and medical care.

Gastro Center Established

Thanks to \$65 million from the Helmsley Charitable Trust, NYP/Weill Cornell has established a Center for Digestive Care offering innovative treatments for numerous conditions from obesity to gastrointestinal reflux to colon cancer. The Center will emphasize integrated care, with nurse coordinators guiding patients from initial diagnosis through treatment and recovery. It will offer programs dedicated to colon and rectal surgery, gastrointestinal health, inflammatory bowel disease, and more, as well as housing a state-of-the-art endoscopy suite.

Weill Cornell, Columbia to Administer New Sackler Prize

A major gift from the Mortimer D. Sackler Foundation has established an annual award in memory of its namesake, a pioneer in developmental psychobiology who passed away in March at age ninety-three. To be awarded every two years by the two Sackler Institutes for Developmental Psychobiology—one at Weill Cornell, the other at Columbia—it will recognize researchers who have advanced understanding of how early brain development influences the mind and behavior throughout life. Weill Cornell will present the first \$100,000 prize in 2010, with the institutions alternating biennially; winners will give Grand Rounds at both schools and lead workshops at both institutes.

Building a Biomedical Networking System

Weill Cornell is one of the partners in a \$12.2 million project to create a system to network researchers across the country, allowing biomedical scientists to share information and find collaborators. The project, called VIVOweb, expands on a system created at Cornell's Ithaca campus in 2003 as a life sciences networking service. (Located at <http://vivo.cornell.edu>, it directs users to researchers as well as grants, publications, facilities, undergraduate majors, graduate fields, and more.) The VIVOweb effort is led by the University of Florida, with Cornell University and Indiana University, Bloomington, as major partners; Weill Cornell will serve as an implementation site. The project was funded by the NIH's National Center for Research Resources as part of the Obama Administration's economic stimulus plan.



JOHN ABBOTT

Rest stop: In late March, the Center for Sleep Medicine marked the opening of its new home, an 1,800-square-foot facility on East 61st Street. It features twelve hotel-quality rooms—with private bathrooms, cable TV, and wireless Internet—where patients stay for overnight sleep studies. A joint effort of the medicine, neurology, and neuroscience departments as well as the Division of Pulmonary and Critical Care Medicine, the Center treats sleep disorders arising from such conditions as apnea, restless-legs syndrome, stress, and more.

TIP OF THE CAP TO...

Surgery clinical fellow **Elaine Cheng, MD**, named an associate scientific adviser to the journal *Science Translational Medicine*.

Ophthalmology chairman **Donald D'Amico, MD**, elected president of the Club Jules Gonin. Limited to the world's most distinguished retinal specialists, the society is named for the Swiss pioneer in retinal surgery.

Joseph Fins, MD, chief of the Division of Medical Ethics, and public health professor **Inmaculada de Melo-Martín, PhD**, who served as guest editors for a special issue of the journal *Technology and Society*. They jointly wrote an introduction and each contributed essays.

Pediatrics chairman **Gerald Loughlin, MD**, named senior associate dean for international clinical program planning. He will work closely with Qatar's Sidra Medical and Research Center to guide development of WCMC-Q programs at the facility.

Surgery chairman **Fabrizio Michelassi, MD**, who served as the Oliver H. Behrs Visiting Professor of Surgery at the Mayo Clinic in February. His duties include deleading Surgical Grand Rounds.

Medicine professor and GHESKIO co-founder **Jean Pape, MD '75**, winner of the Carlos Slim Award for Lifetime Achievement in Research for his efforts to combat HIV and other infectious diseases in Haiti.

Lyden Protégé Named Intel Finalist

A high school student mentored by pediatric cardiology professor David Lyden, MD, PhD, was named one of forty finalists nationwide in the prestigious Intel Science Talent Search. Rachel Cawkwell, a senior at Byram Hills High School in Armonk, New York, spent two summers plus time during the academic year working under Lyden, learning lab techniques and developing her own research. Her work for the Intel competition involved studying how tumor cells communicate with white blood cells to prevent them from fighting cancer. As Lyden said of Cawkwell in her Intel submission: "In the history of my lab, there has never been a student at the high school, university, or medical school level as gifted as she."

Cardiology Professors Edit Clinical Texts

Faculty in the Division of Cardiology have co-edited two books reviewing clinical topics in the field. Published by Demos Medical, the volumes are *Topics in Structural Heart Disease* and *Topics in Arrhythmias and Ischemic Heart Disease*. They're part of the Emerging Concepts in Cardiology Series, edited by Craig Basson, MD, PhD, director of cardiovascular research at Weill Cornell, and cardiology chief Bruce Lerman, MD.

NYP Embraces Surgical Imaging System

NewYork-Presbyterian Hospital has installed five Siemens Artis zeego medical imaging systems—improving safety and outcomes by providing faster, more accurate 3-D images of the body than conventional methods. The new technology could fundamentally change surgery, offering a better way to assess patients, devise surgical plans, and provide more targeted treatment.

"This technology is a major step forward," says Jeffrey Milsom, MD, chief of colon and rectal surgery at NYP/Weill Cornell. "Previously, to obtain such images, we had to bring patients to a separate radiology suite. Now, high-quality imaging is available right in the operating room, giving us an amazingly clear picture of the patient's anatomy from any angle." The first hospital in the U.S. to use the Artis zeego for neurological and colorectal surgeries, NewYork-Presbyterian has more of the systems installed than any other medical center in the world.

FROM THE BENCH

Can Vitamin B3 Help Prevent Spinal Damage?

With a \$2.5 million grant from the New York State Spinal Cord Injury Research Board, Weill Cornell scientists are exploring the efficacy of a vitamin B3 precursor to prevent paralysis when administered at elevated levels. The naturally occurring substance, nicotinamide riboside, has already been proven to protect against cell death and axonal degeneration in cultures and models of spinal cord injury. Researchers will conduct a lab study to see how well it works on cells stressed to the point that they will die within several hours; in a separate project, scientists at the Weill Cornell-affiliated Burke Rehabilitation Center will test it in mice with spinal injuries. "We hope to show that a natural compound that can be produced cheaply and efficiently could be the key to preventing permanent injury," says Anthony Sauve, PhD, associate professor of pharmacology. "We also believe that the compound would be perfectly safe to use in humans, since it is a vitamin that has not been shown to have negative effects on the body when artificially elevated."

Smoking Leads to Substance Abuse in Teens

Attitudes toward smoking affect the chances that adolescents will use drugs or alcohol, new research has found. "If teenagers feel smoking is socially acceptable and widely practiced, they are much more likely not only to smoke, but also to drink and possibly use marijuana," says lead author Jennifer Epstein, PhD, assistant research professor of public health. The findings varied according to gender: girls are more heavily influenced by the attitudes of their close peers, while boys were affected by their larger age group, not just their friends. "While the differences between how boys and girls are influenced by these social factors are subtle, they could help us develop new gender-specific educational tactics for preventing these behaviors," she says. The work was published in the *Journal of Child and Adolescent Substance Abuse*.

A Genetic Link Between Heart and Thyroid

In work published in *Nature Medicine*, researchers have discovered that mutations of the proteins KCNE2 or KCNQ1—already known to be involved in arrhythmias—may also cause thyroid problems. "It has long been known that

the thyroid influences cardiac function and cardiac arrhythmias," says senior author Geoffrey Abbott, PhD, associate professor of pharmacology in medicine, "but our findings demonstrate a novel genetic link between inherited cardiac arrhythmia and thyroid dysfunction." The discovery was based on tests with mice engineered to lack the KCNE2 gene. As Abbott notes, "Much additional work is required before we can fully understand how inherited mutations in the genes coding these proteins affect human thyroid function, how this in turn influences the health of the human heart and other tissues, and how useful our discoveries will be in developing therapies to treat thyroid and thyroid-related human disease."

Why Statins Work Better for Some People

The ability of statins to protect against both high cholesterol and colorectal cancer varies according to individual genetics. An article in *Cancer Prevention Research* by associate professor of genetic medicine Steven Lipkin, MD, PhD, and colleagues reported that statins are not as effective in about 44 percent of Caucasians because they have inherited a particular gene variant. The researchers were testing the hypothesis that patients who don't see a drop in cholesterol on statins also don't benefit from the drugs' recently discovered cancer-protecting properties. "Given that approximately 25 million individuals worldwide currently use statins, we anticipate this discovery may prompt development of more precise, personalized, and cost-effective cancer risk reduction strategies," Lipkin says.

In Praise of the Digital Rx

In a study of more than 7,000 prescriptions—roughly half of them electronic, the other half written by hand—Weill Cornell researchers found that the old-school versions were seven times more likely to contain errors. They discovered that nearly two in five of the prescriptions, written by providers in community practices, included errors such as incomplete directions or a missing quantity. "Although most of the errors we found would not cause serious harm to patients, they could result in callbacks from pharmacies and loss of time for doctors, patients, and pharmacists," says senior author Erika Abramson, MD, assistant professor of pediatrics. "On the plus side, we found that by writing prescriptions electronically, doctors can dramatically reduce these errors and therefore these inefficiencies."

Talk of the Gown

Insights & Viewpoints



WCMC-Q

Javaid Sheikh, MD.
Opposite: The campus
in Doha.

Meet the Dean

Questions for WCMC-Q's Javaid Sheikh, MD

Javaid Sheikh joined Weill Cornell Medical College in Qatar in 2007 as vice dean for research. A native of Pakistan, he earned his MD from Lahore's King Edward Medical College and an MBA from Golden Gate University in San Francisco. He came to WCMC-Q from Stanford, where he completed his residency and two research fellowships before serving as an associate dean and psychiatry professor. Sheikh (his name, as he likes to put it, is pronounced like "shake and bake") became interim head of the Qatar campus in early 2009, succeeding founding dean Daniel Alonso, MD. He was appointed to the post on a permanent basis in January following an international search. He lives in Doha with his wife, Asma, and two children.

Weill Cornell Medicine: The Qatar branch graduated its first class of MDs just two years ago. What are the challenges of leading such a young institution?

Javaid Sheikh: The biggest challenge is that we need to put our name out, both for residency program directors to become more familiar with us and to establish clinical exchanges with other programs in the U.S. We need to get the word out that we are recruiting first-rate faculty and they are publishing in journals like *Nature* and the *New England Journal of Medicine*. You have to be patient. We are creating history as we go, but that is part of the excitement. In a larger way, we're part of the renaissance of science and higher education in this part of the world.

WCM: What do you see as WCMC-Q's greatest strengths and weaknesses?

JS: The strength is obvious, which is that this is the only branch campus of an American medical institution in this region. The weakness I view as a challenge, which is to attract world-class, first-

rate faculty. We have started that process, and it will continue for several years.

WCM: Could you describe WCMC-Q's five-year strategic plan, which you're now charged with implementing?

JS: Our vision is to fully integrate our tripartite mission for education, research, and clinical excellence. We also want to get international accreditations in postgraduate training and for our affiliates, Hamad Medical Corporation and Sidra Medical Research Center. We want to create an international hub for collaboration and, in addition to producing physician leaders, contribute significantly to the biomedical workforce in Qatar.

WCM: How might we see closer collaboration between the students and faculty of the Doha and New York campuses?

JS: We need to have much better student exchange programs with both New York and Ithaca. Now that we have research capacity, we need to provide fellowship opportunities—if students want to experience another culture, they can come here for clinical rotations and research. We have close relationships with some faculty researchers in New York, but we need to do more. We also can establish centers of excellence, which can be jointly funded and managed. For example, Dean Gotto and I have been talking about an international center on obesity, diabetes, and metabolic syndrome, which would have a presence in both Doha and New York.

WCM: What lessons have been learned during the first decade that will shape WCMC-Q going forward?

JS: We have created a profile—quantitative and qualitative—of students who succeed here, so

we're focusing on that in our admission process while keeping the same New York standards. We are also trying to attract more outstanding students from all over the world. To promote diversity, we need to attract more from Europe and North America.

WCM: How does being from the Middle East yourself give you special insight in leading WCMC-Q?

JS: Local and regional cultures impact the workings of any institution, and we are no different. So I think that having a deep understanding of the local culture and having spent thirty years in the U.S. makes me a truly international person. I think I relate to both sides well, and I try to build bridges wherever there are cultural gaps.

WCM: You speak five languages; is that particularly helpful in your job as dean?

JS: My mother tongue is Punjabi, and the national language of Pakistan is Urdu. I manage in English, and I can read and write Arabic and Persian quite well. Since we're an American institution, our instruction and business are conducted in English, so it is more about a larger understanding of the cultural context. Language is only a part of it.

WCM: Has it been particularly challenging to succeed Dr. Alonso, since he played such an instrumental role in establishing the college?

JS: I was fortunate to have the chance to work with Dr. Alonso for two years before he retired, so my transition has been reasonably smooth. If I had come from outside, not understanding the culture and history of the College, that would have been difficult.

WCM: How would you describe your leadership style?

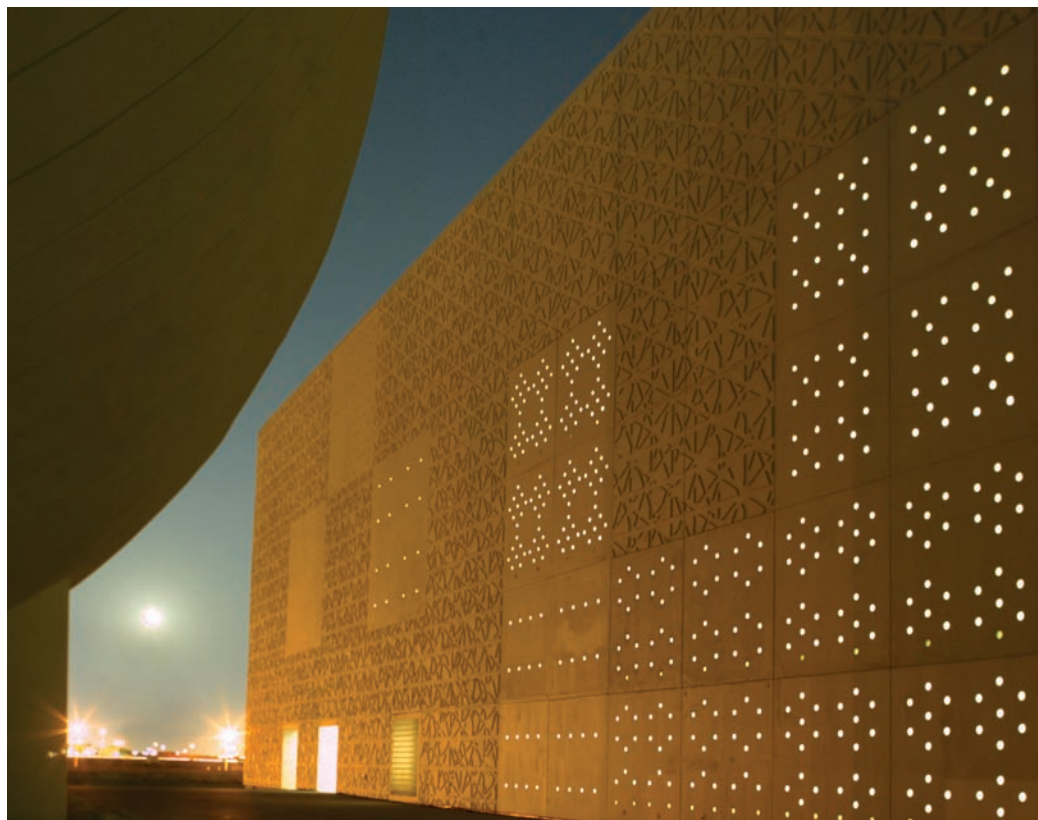
JS: It's very much about consensus-building. I like to work with teams of people and get their input. In academia, you have to bring people together; success is harder to come by if you just issue orders to very talented people.

WCM: What are your favorite and least favorite parts of the job?

JS: My favorite thing is to come to work and find new challenges every day, and recognize that we are part of a truly historic venture. The least favorite is to sit in numerous meetings, but that is part of the job of being a dean.

WCM: Do you enjoy living in Doha?

JS: It's a family friendly and safe community. You do not, of course, have the cultural opportunities that you have in New York City or Silicon Valley.



WCMC-Q

My primary hobby is reading, on a wide range of topics—particularly historical, cultural, and genetic influences on human behavior—and I find it easy to read in this relaxed environment.

WCM: What books do you have on your nightstand at the moment?

JS: *The Language of Life: DNA and the Revolution in Personalized Medicine* by Francis Collins, the new NIH director. Also *The Neuro Revolution* by Zack Lynch and Byron Laursen and a couple of other books on the role of neuroscience in human behavior.

WCM: Does your training in psychiatry aid you in running the college?

JS: I would say so. In general, it helps you listen to people carefully and understand them, to better relate to faculty, staff, and students. I also have a business background, and that helps me look at organizational behavior in a more systems-oriented fashion.

WCM: Specifically, you're an expert in anxiety disorders. Does that come in handy in coping with the vicissitudes of academia?

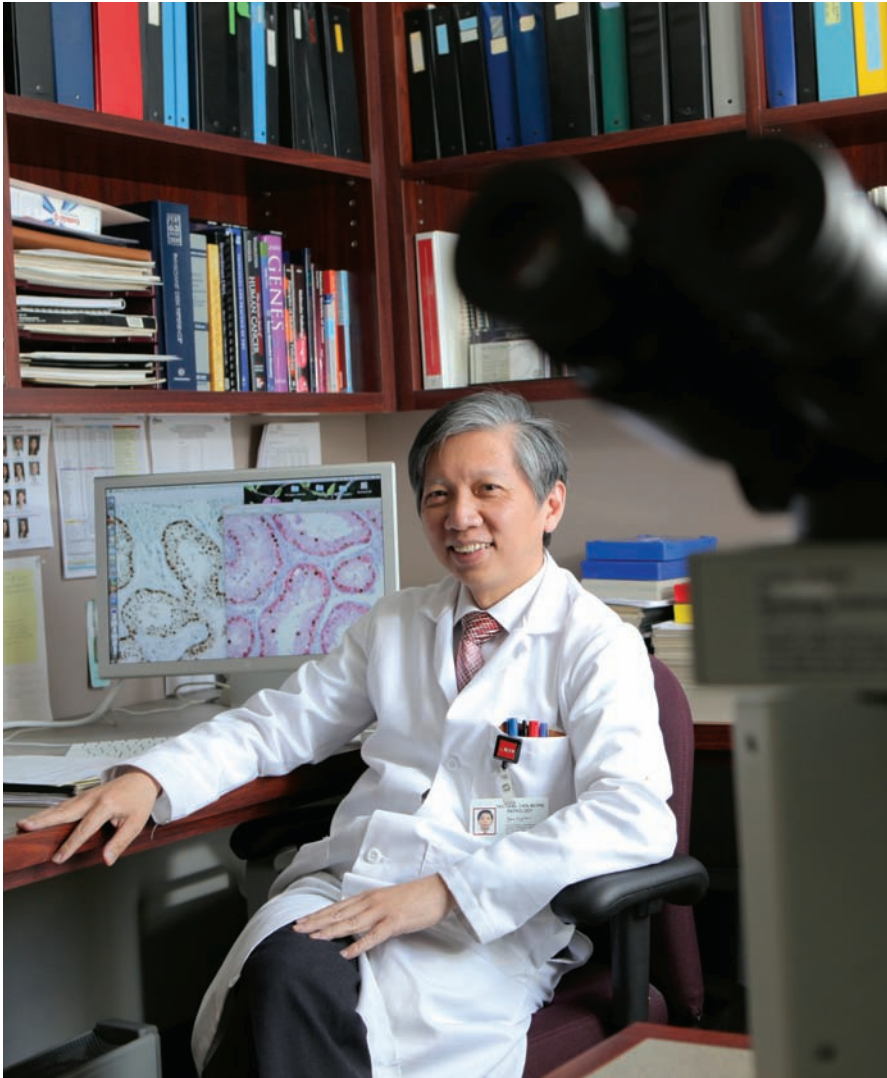
JS: It does. On difficult days, I can do some relaxation exercises.

— Beth Saulnier

'Having a deep understanding of the local culture and having spent thirty years in the U.S. makes me a truly international person.'

Internal Defense

Drafting the immune system into the war against cancer



JOHN ABBOTT

Yao-Tseng Chen, MD, PhD '86

The case was hopeless: an inoperable sarcoma had invaded sixteen-year-old John Ficken's abdominal wall, pelvis, and bladder. The boy's belly protruded with the growth, and the pain was unrelenting. Yet Ficken's young surgeon and oncologist, William Coley, MD, harbored cause for optimism: an experimental bacterial cocktail intended to jump-start his immune system and eradicate the cancer. Over the course of four months in the winter and spring of 1893, the New York City physician injected Ficken's tumor with an increasingly potent dose of Coley vaccine. Each

treatment induced inflammation, chills, and fever. But slowly, the tumor shrank. By the time Ficken's treatment ended in May, the cancer had shrunk by 80 percent. As the summer drew to a close, the tumor was barely perceptible. Ficken lived another quarter-century, dying of a heart attack in 1919.

A century after Coley's pioneering work was eclipsed by sterile surgical techniques combined with the emergence of radiation and chemotherapy, scientists have again turned their attention to the role of the immune system in the war against cancer. "We are trying to find things that are produced by the tumor, yet recognized by the immune system as foreign," says Weill Cornell molecular pathologist Yao-Tseng Chen, MD, PhD '86, "so that the immune system would generate a response and destroy the tumor cells." Unlike vaccines such as Gardasil, which prevents the viral precursor to cervical cancer and thus averts the associated malignancy, the approach taken by Chen and his collaborators echoes Coley's work: prompting the immune system to mount an attack against an existing tumor.

Nasser Altorki, MD, director of the Division of Thoracic Surgery at NewYork-Presbyterian Hospital/Weill Cornell Medical Center and one of Chen's collaborators, says oncologists and patients desperately need new, less toxic complements to the conventional trifecta of surgery, radiation, and chemotherapy. "Recruitment of the immune system can probably result in an anti-tumor effect with minimal side effects because it targets the tumor and not healthy cells," he says. "In lung cancer, we've seen that although chemotherapy produces some results, they are by no means spectacular. Good results occur in far too few patients—and for some patients, the treatment has side effects without benefits."

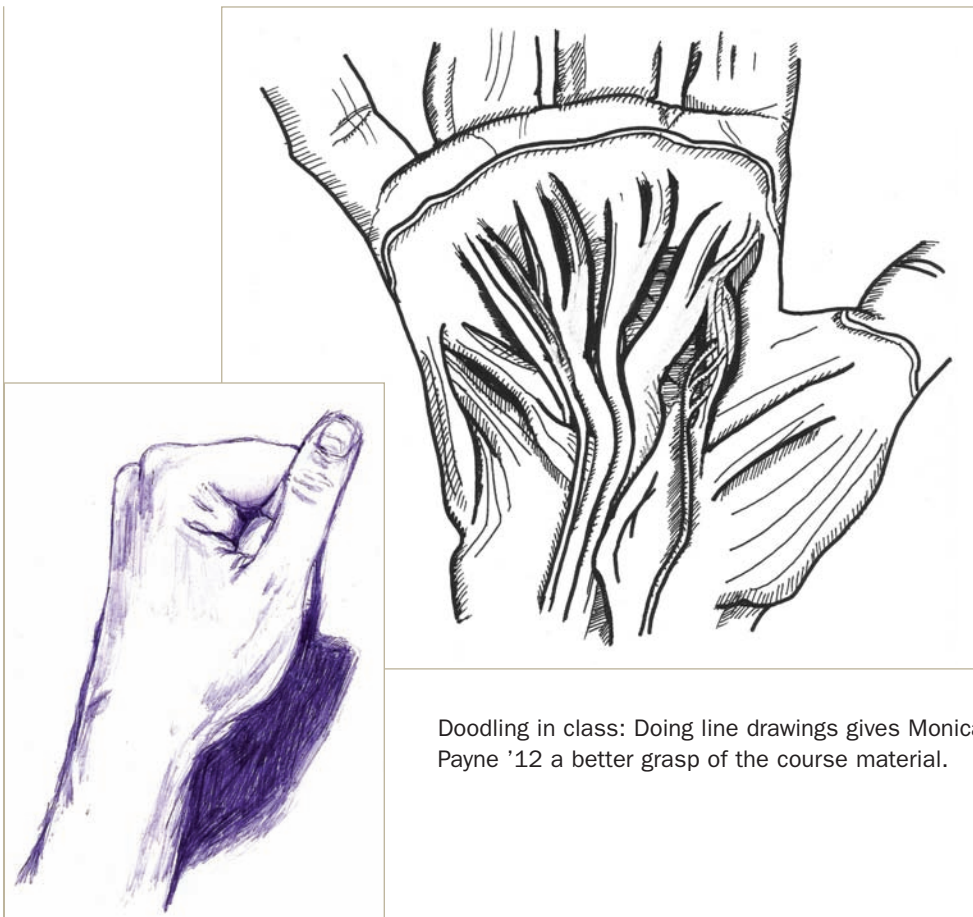
In 1996, Chen and his graduate mentor, immunology professor Lloyd Old, MD, published their discovery of NY-ESO-1—a protein common to many forms of melanoma, lung cancer, and ovarian cancer—isolated from a patient of Altorki's with esophageal cancer. In August 2009, scientists at Cornell's Ithaca-based Bioproduction Facility announced that they had successfully created a vaccine based on the protein for Phase I trials in patients with melanoma and ovarian cancer. The trials began last fall at New York University Medical Center and the Roswell Park Cancer Institute in Buffalo, New York. "I would

be cautiously optimistic that in another ten years, we would indeed see this becoming more relevant in clinical care," says Chen.

Chen, who received his medical degree in Taiwan and became a tumor immunologist at Weill Cornell, credits the rapid pace of discovery to funding and support from the Cancer Vaccine Collaborative—a joint venture of the nonprofit Ludwig Institute for Cancer Research and the Cancer Research Institute, which Coley's daughter founded in 1953 to extend her father's work. (Coley died in 1936, many of his findings unpublished and his data insufficiently detailed to satisfy scientist-physicians seeking insight into why his treatments worked.) Soon after publishing their NY-ESO-1 findings, Chen and Old—a former director of the Ludwig Institute and longtime director of the Scientific Advisory Council of the Cancer Research Institute—tapped Carl Batt, PhD, Cornell's Liberty Hyde Bailey Professor of Food Science and an expert in the production of recombinant proteins. "We had a core capability to make therapeutic agents, to make proteins in microbial systems," says Batt. "This was an outstanding opportunity to partner and develop long-term relationships to see our work make its way into the clinic."

Chen notes that because the researchers needed to generate material that could be injected into the human body, FDA rules prohibited them from producing it at the bench. Typically, investigators license their intellectual property to a pharmaceutical company certified in the appropriate manufacturing practices, in the hope that the firm will ultimately pursue clinical trials. But, he notes, "if you do that, you lose control of the pace of development and design of the clinical trial." In 2001, the Ludwig Institute funded the construction of the Bioproduction Facility, located next to Batt's lab in Ithaca's College of Agriculture and Life Sciences. It is operated in accordance with federal standards and staffed by undergrads, graduate students, and postdocs. Funds from the Ludwig Institute, Atlantic Philanthropies, and the Cancer Research Institute defray operating costs. "Here we have the opportunity to discover and produce clinical-grade materials tested in clinical trials without restrictions on academic freedom," says Altorki. "If it's successful, it can then be released to the pharmaceutical industry for large-scale development. It puts us in a whole different boat in terms of economic and academic freedom."

— Sharon Tregaskis



Doodling in class: Doing line drawings gives Monica Payne '12 a better grasp of the course material.

Hands-On Learning

Drawing her way to an MD

Second-year medical student Monica Payne likes to keep her hands moving as she tries to wrap her mind around her coursework. "I'm not an auditory learner, so I find my attention wandering sometimes during lectures, especially if the lecturer doesn't use many pictures," says Payne. "But when I draw, I stop daydreaming and listen." She fills her notebooks with illustrations of difficult science concepts, which help her release some creative energy and get a better grasp of the material. But what she has long considered doodling has caught the attention of her peers and professors alike.

Anatomy professor Ahmed Khan likes her work so much that he's using it to illustrate his article "Variations in the Palm and Arch of the Hand," which he hopes to publish in the *Journal of Clinical Anatomy*. "Her drawings are absolutely marvelous—she has a great gift as a medical illustrator," says Khan, who met Payne when she volunteered to help with his research.

When she was a child, Payne pored over *Grey's Anatomy* and other medical reference materials. Although she considered a career in art, she ultimately decided to go to medical school—but she hasn't given up hope that her two interests may merge. Someday, she says, she'd like to author a medical textbook in the form of a graphic novel. "There are a lot of applications for art in medicine," she says. "One thing that impresses me is how a textbook illustrator can clarify a concept through a good drawing." In the meantime, Payne continues to practice her art, painting murals in her apartment, doing the occasional portrait, and even sketching her classmates' heads during class. "I have to," she says, "because it's hard to find people who will sit still for that long."

— Rebecca Coffman

Island Time

Work in Grenada earns an ob/gyn an honor from the Queen



PROVIDED

Practicing in paradise: Carol McIntosh, MD '87, at the clinic she founded in Carriacou, Grenada. Opposite: Clad in her Buckingham Palace finery, McIntosh displays the OBE she received from Prince Charles.

Carol McIntosh, MD '87, recalls the phone call with a mixture of wry amusement and lingering wonder. The office of the Governor General of Grenada was on the line, and the conversation went something like this:

"Dr. McIntosh, you've been awarded the OBE."

"The OB what?"

"From the Queen."

She still didn't get it. *The queen? What queen?* And then it hit her: *Elizabeth. The Queen of England.*

McIntosh had been honored with the Most Excellent Order of the British Empire for her work in establishing a medical clinic in

Carriacou, the middle-sized of the three islands that make up the British Commonwealth nation of Grenada. In June 2009, she went to Buckingham Palace to receive the award—presented by Prince Charles himself. Beforehand, she was schooled in protocol: She must curtsy. The prince would speak to her, and she should address him as "Prince Charles" or "Sir." She should speak until he extended his hand, signaling the end of the conversation, and then move on. "It was amazing, the pomp and circumstance," says McIntosh, who earned an undergraduate degree from the Ithaca campus in 1983. "Prince Charles in his kilt; soldiers in their regalia, standing so still you think they're statues—it was breathtaking."

British friends back in Grenada had told her that she absolutely *must* wear a hat, so she procured one to match the beige embroidery on her sky-blue dress-and-jacket ensemble. She brought along her parents and an aunt, and they watched as more senior honorees were knighted with Charles's ceremonial tap of a sword on their shoulders. (McIntosh's award gives her the right to put "OBE" after her name, but does not convey the honorific "Dame.") When it was her turn, he pinned the medal on her chest and inquired about the lingering damage from Hurricane Ivan, which devastated Grenada in 2004. "It really was amazing," she says again. "You're thinking, *I'm talking to Prince Charles.*"

It was a long way from Grenada—and from Brooklyn, where McIntosh was born, the daughter of American citizens who'd been raised on Carriacou. On a trip to the island for Carnival season in 1993, McIntosh—by then a board-certified ob/gyn in private practice in Manhattan—met a six-year-old boy whose painful sickle cell crisis was being treated only with children's Tylenol; in the U.S., she knew, he'd likely get morphine. The experience inspired her to ask physician friends to donate medication, which she ferried back to Grenada. It was the beginning of a decade of twice-a-year *pro bono* trips that grew to comprise more than forty doctors, nurses, and nonmedical volunteers. But as gratifying as the work was, she chafed at its limitations. "It was just triage," she says. "We weren't providing long-term services. We'd tell a patient, 'You need to get this test,' and they would wait six months or a year until we came back to go over the results. People weren't getting excellent care, because they were waiting for us."

With the help of another physician and a local contractor, she founded Carriacou Health Services; the clinic broke ground in 2003 and—after a year-long delay due to Hurricane Ivan—opened in 2005. With a rotating roster of visiting specialists in fields like pediatrics and oncology, it offers primary care and a host of services (like X-ray, ultrasound, and surgery) that previously required traveling to the main island of Grenada. While it's not a free clinic, no one is turned away. "If people can't pay," she says, "they might come in the following week with a dozen eggs, a chicken they just killed, or some vegetables from their garden."

For a year or so, McIntosh maintained her New York practice, spending one week a month in

Grenada. When the split patient load became too much, she sold her practice and moved to Carriacou full-time. These days, she stays there for three-month stretches, coming back to the U.S. for regular two-week visits. (She holds dual citizenship and is licensed in both places.) Although a city girl born and bred—on return visits, she still savors a hot dog from a cart and the burgers at Jackson Hole—she has learned to love island living. "Imagine a place that's thirteen square miles surrounded by beach, and that's Carriacou," she says. "You can see the water from just about every point. You wake up and hear a rooster outside, see goats and sheep walking along with the cars. Everyone knows everyone—and if you're from Carriacou, you're probably related to everyone. It's not a rich place, but it's a special place. You walk down the street and everyone says good morning." She laughs when she recalls her first few nights on the island; she couldn't sleep because it was just too quiet. "But you get used to not having the hustle and bustle—to knowing that you have to get somewhere, but you don't have to move that fast."

Despite the slower pace, she says, being a doctor on Carriacou is just as challenging as working in an urban hospital or running a busy practice, though for different reasons. "Anyone can walk in at any time, and you have to provide treatment," says McIntosh, who cites poorly controlled diabetes and hypertension as the island's most common health concerns. "You can't just order a CT scan or ask a resident to evaluate a patient—it's all on you. You learn to do clinical work as opposed to medical tests. You go with your gut, and you know when to say, 'We don't have the resources to handle this; you have to go to the mainland.' And after you finish work, you can sit and watch the stars."

— Beth Saulnier



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JOHN ABBOTT



PROVIDED BY MICHAEL KLUFAS

Mentor and student: Assistant professor Christopher Starr, MD '98 (above), has been guiding Michael Klufas '10 (left, doing an eye exam at Kilimanjaro Christian Medical Center in Tanzania) in his ophthalmology research.

In Plain Sight

A medical student weighs the promise of an artificial cornea

In 2008, surgeons performed more than 40,000 corneal transplants in the U.S.—aiming to restore sight to patients in whom the “window” of the eye is opaque or otherwise damaged but the optic nerve remains functional. But as aspiring ophthalmologist Michael Klufas '10 notes, “There are certain conditions where a traditional corneal transplant simply will not function properly.”

Last fall, under the mentorship of assistant professor of ophthalmology Christopher Starr, MD '98, Klufas studied a promising alternative to transplantation: the artificial cornea known as

the Boston Keratoprosthesis, or KPro. Klufas had the opportunity to observe surgeries in which Starr implanted the device into patients at NewYork-Presbyterian Hospital/Weill Cornell

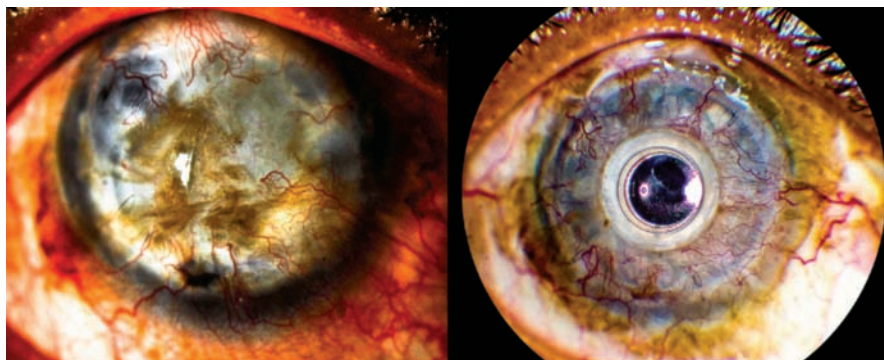
Medical Center, the leading referral site for the KPro in the New York metro area. Klufas even authored a paper with Starr on the subject, published in *Cataract & Refractive Surgery Today*.

The experience inspired Klufas to continue his studies on the device. "He'd read all the literature on the procedure," Starr says, "and at that point he was so knowledgeable about the KPro that he wanted to keep going." So Starr arranged for Klufas to go to the Massachusetts Eye and Ear Infirmary for an eight-week elective under his own mentor—Claes Dohlman, MD, the KPro's designer and the founder of modern corneal science. It was a rare chance to study a medical device while working under the physician who invented it. Klufas even took a tour of the factory—really, a small machine shop—that manufactures the KPro, an experience that showed him that "there isn't so much of a leap from concept to reality in medicine."

His work in Boston earned Klufas lead-author credit on a paper set to appear in an upcoming issue of *International Ophthalmology Clinics*. As in his previous publication with Starr—in which they wrote that the KPro "is quickly becoming the first artificial cornea to warrant mainstream status"—Klufas found that the KPro "is no longer the treatment of last resort," and in fact has proven to be the preferred option for many conditions.

The KPro is the latest iteration of an idea first proposed more than 200 years ago—an artificial replacement for a damaged cornea. While more such devices are currently in development, the KPro is one of three most commonly used. Dohlman began experimenting with artificial corneas in the Sixties and got FDA approval for the KPro in 1992. In 2002, surgeons implanted fewer than fifty in the U.S., but by last year the number had grown to more than 1,100. The recent success of the device, and the growing body of literature surrounding it, has encouraged surgeons to begin considering implanting it as a primary procedure. "In the old days, you had to fail with four or five transplants before you finally said, 'OK, let's take a risk with keratoprosthesis,'" says Starr, who directs the ophthalmology residency program at Weill Cornell. "But in recent years—with the refinement of the technique, post-operative medications, and design improvements—it's a much more successful surgery."

Artificial corneas like the KPro offer an alternative for patients whose eye tissue is too far gone for the conventional procedure. As Starr explains, "You need a certain mixture of healthy ocular surface, tears, and blood supply to keep



PROVIDED BY CHRISTOPHER STARR, MD '98

Clear vision: A cornea before and after implantation of the KPro.

the cornea transplant alive." Thus, for example, keratoprosthesis gives hope to patients with autoimmune conditions, burns, or pediatric corneal opacities who have low success rates with standard corneal transplantation. Artificial corneas also have the potential to help patients in developing countries, where eye banks are rare and diseases that lead to corneal blindness, such as trachoma, are much more prevalent. And in places where cultural or religious mores prohibit donating and transplanting human tissue, Klufas says, "the KPro is attractive, as the patient's own diseased cornea could be used to suture it into place." This spring, during another eight-week elective, Klufas gave a lecture on the KPro to the ophthalmology department at the Kilimanjaro Christian Medical Center in Moshi, Tanzania.

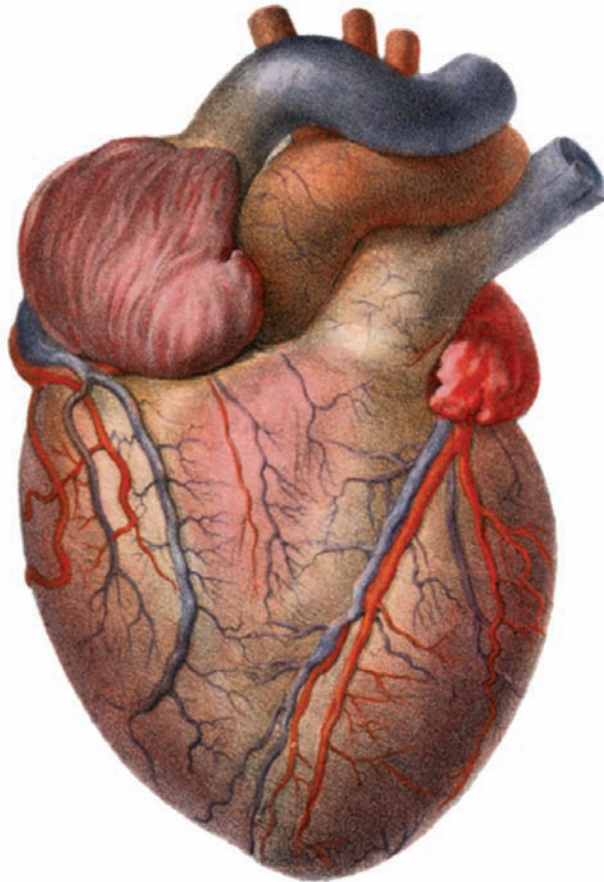
The KPro consists of front and back plates with an optical cylinder in the middle. It is sutured into the patient's cornea in a manner similar to the standard transplant, so surgeons should be able to transfer their knowledge to implanting a KPro with relative ease. *In situ* the device is quite noticeable, though contact lenses can address cosmetic issues. Post-op care remains critical, including indefinite use of a protective contact lens and daily antibiotic prophylaxis. Nevertheless, for a certain cohort of patients the outcome can be tremendous; in one study, nearly one in five had vision better than 20/40.

Starr, like several of his colleagues at the Medical College, trained as a resident under Dohlman. Now he in turn has become a mentor to Klufas, who begins his ophthalmology residency at Weill Cornell in 2011 after the required one-year medicine internship (at Sloan-Kettering), during which the two will continue their work on the KPro. "You take off the patch, and the majority of these patients start to cry," says Starr. "They say, 'Oh my God, it's miraculous. I haven't seen anything for years, and I can see your face.'"

— Andrea Crawford

Valve Job

Trial tests an alternative for valvular heart surgery



ATLAS OF HUMAN ANATOMY AND SURGERY / TASCHEN BOOKS

Open-heart surgery was first performed in 1952—and for six decades it has remained the gold standard for repairing all manner of mechanical heart defects. But over the past year, cardiothoracic surgeons at NewYork-Presbyterian Hospital/Weill Cornell Medical Center have performed multiple operations using an artificial aortic valve, already in widespread use abroad, whose insertion requires only a small incision.

The surgeries are part of a North American trial evaluating the technique, in which the new valve is navigated to the heart through the arteries—offering not only a potential re-evaluation of the gold standard, but new hope for many elderly or weakened patients considered unfit for traditional open-heart surgery. Says Karl Krieger, MD, vice chairman of cardiothoracic surgery at NYP/Weill Cornell: “It has the potential to change the way we do all valvular heart surgery.”

A healthy aortic valve has three tiny flaps of tissue that control the flow of oxygenated blood out of the heart—a vital function that, over time, can wear out the valve and lead to aortic stenosis, a narrow-

ing and calcification that is often fatal. The most common type of valvular illness, it’s nearly impossible to treat without physical intervention. “In the last two years at Weill Cornell, the operative mortality was less than 1 percent for [conventional] aortic valve replacement,” says Krieger. “But there’s a certain percentage of patients who don’t present until they’re in their eighties or nineties; because of their age or other complications, they aren’t offered surgery as an option. Treated conservatively, they will usually develop congestive heart failure and die.”

Enter the Edwards Sapien valve. Made of bovine heart tissue, the valve is constructed around a compressed wire mesh support, which is deployed to the heart intravenously and inflated by a pressurized balloon once in place. Whereas traditional open-heart surgery typically takes three to four hours and weeks of recovery, this minimally invasive operation implants the new valve in ninety minutes using standard cardiac catheterization techniques—putting much less strain on the patient.

Such was the case for eighty-three-

year-old Donald Casey, whose diagnosis of aortic stenosis only confirmed what he already knew. “When you can walk only twenty-five yards and have constant pain in your chest, you know something’s wrong,” says Casey, who is retired from the textile industry and splits his time between New Jersey and Florida. Having undergone bypass surgery eight years earlier, Casey was adamant about finding another option. In February, he successfully underwent the procedure at Weill Cornell, one of twenty sites in the U.S. and Canada where the study is being conducted by the FDA.

“What’s interesting about this device is that it’s already commercially approved for use in Europe and Asia—the procedure has been performed on 5,000 to 10,000 patients in Europe alone,” says Arash Salemi, MD ’97, the assistant professor of cardiothoracic surgery who operated on Casey. “We don’t have access to the long-term follow-up data on these patients yet, but the initial data from Europe, and the studies we’ve done here, have shown that the risks are equal to or less than what we expected. All the cases we’ve done here have gone smoothly.”

Researchers have been on the lookout for bleeding at the incision site, damage to the artery, and stroke, but no such problems have been reported. “I’ve been surprised at how well the patients have done,” says Krieger. “We have done the procedure on some very elderly and sick patients who probably wouldn’t have survived a traditional operation. They are usually home within two days and have noted a dramatic improvement in their symptomatology and few side effects.”

The trial (called PARTNER, for Placement of AoRTic traNScatheter valves) is also testing two possible insertion sites for the catheter: through the femoral artery at the groin and directly through the chest. Krieger estimates that the device and corresponding operation will be FDA approved in about two years—but in the meantime, the trial is still accepting new patients. “Some studies suggest that 20 to 30 percent of patients diagnosed with aortic stenosis are never given an option for any kind of invasive therapy,” he says. “It’s our hope that internists or cardiologists might think, I’ve got patients in my practice whom I never felt were surgical candidates, but they might be candidates for this.”

As far as Casey is concerned, the benefits are obvious. “I’m alive, I can walk, and I can play golf,” he says. “I’d say that’s pretty good.”

—Liz Sheldon

MDivas

Students explore medicine through opera

To the many subjects covered at Weill Cornell, add a few others: dueling, seduction, deception, eternal damnation. Those and a variety of other human foibles were on display last fall, when psychiatry professor Joseph Murray, MD, took a dozen first-years to a production of *Don Giovanni* as part of an informal program linking opera and medicine.

The trip was the latest in a series of Medical College offerings exploring the connection between medicine and the arts; others have included a field trip to the Frick Collection to practice visual diagnosis and a mock competency trial for the title character in *King Lear*. The opera elective lets students broaden their cultural horizons while building on lessons stressed in the introduction to doctoring course known as Medicine, Patients, and Society, mandatory for first-years. “One of our main emphases is communication skills—to get students comfortable with patients, but also how to listen to the patient’s story,” says Murray. “It dawned on me that opera is an interesting way of examining how to listen to a character; in many ways it’s parallel to how to listen to a patient.”

Last year, Murray took students to a Saturday matinee of Gluck’s *Orfeo ed Euridice*, performed by the Metropolitan Opera and simulcast at a movie theater. For *Don Giovanni*, they attended a live performance at New York City Opera, which recast Mozart’s classic to the modern day. (“The way they staged it was kind of hilarious,” observes Rula Green-Gladden ’13. “In the second act, the two male leads spent most of the time in their underwear.”) In both cases, Murray invited the students to his apartment for a three-hour seminar before the performance; a pianist since childhood, he gave them an orientation and performed selections from the opera. “What does a character express not only through the words, but also music and body language?” Murray muses. “What does the music convey about the character? And does the composer convey things that the character might not even be aware of—is something being communicated both consciously and unconsciously?”

Among the potential lessons of *Don Giovanni*, he says, is an example of ambivalence, which the students may see in patients faced with treatment decisions. He cites the character of Donna Elvira, who has conflicted feelings about the infamous lothario of the title, who has loved her and left her. “On one hand, she totally fell for him and she’d go to him if he gave her the least encouragement,” Murray says. “On the other hand, she is furious at him for abandoning her. In a number of arias she sings about wanting to leave him—but the music has a repetitive quality that keeps returning to the same point. Ultimately, she keeps going back to him, even though she’s

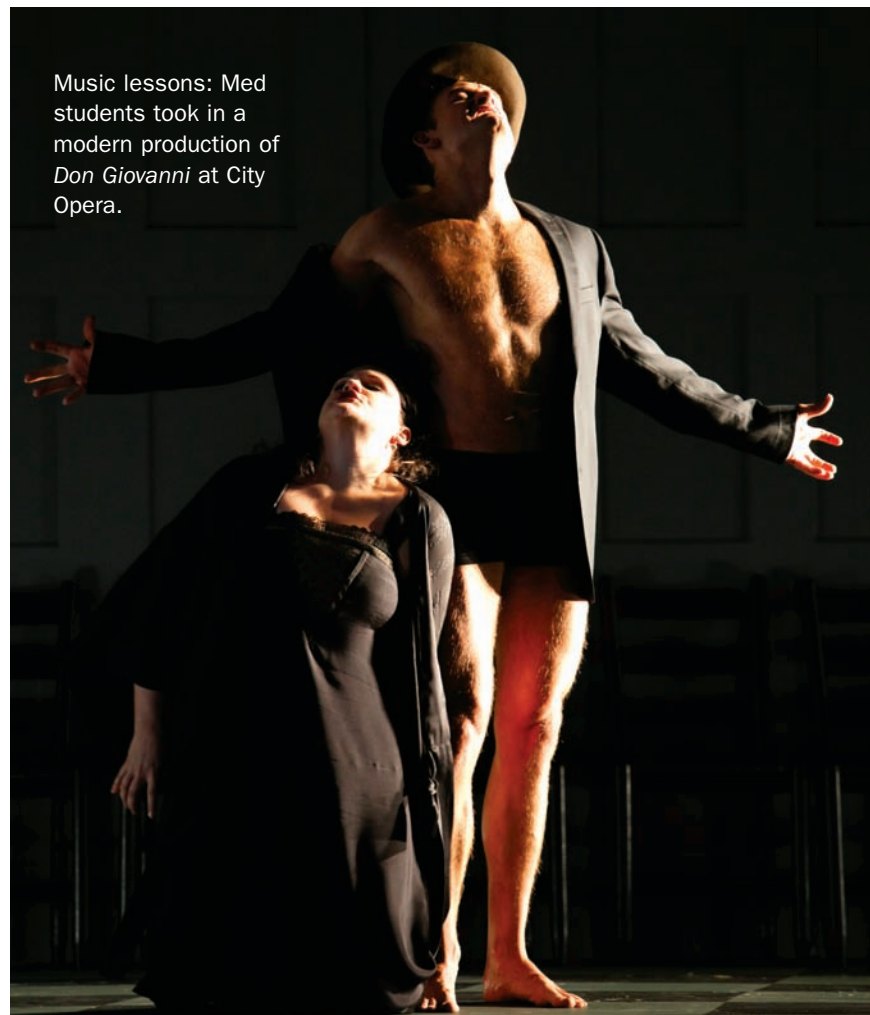
singing about rage and vengeance.”

One of the students who spearheaded the City Opera trip was Jennifer Salant ’13, an avid singer in high school and college who hopes to stay involved with music during medical training. She and Murray plan to schedule future outings, perhaps forming an opera club for students and faculty and taking advantage of the newly established partnership between Weill Cornell and Juilliard. “Opera shows us the epitome of human emotion,” Salant notes. “We see love, anger, jealousy, hatred, all manifested in tangible ways. They’re real emotions that we as doctors are going to have to contend with.”

Beyond using the genre as a teaching tool, Murray admits that as a longtime opera buff, he has another agenda: passing on his passion to the next generation. “It’s the not-too-subtle point that I’m trying to get across,” he says. “If you’re living in New York, you’d be crazy not to take advantage of a night at the opera.”

— Beth Saulnier

CAROL ROSEGG



Music lessons: Med students took in a modern production of *Don Giovanni* at City Opera.

Border Crossing

In a polyglot nation, WCMC-Q trains students to treat people of many cultures and creeds



FOTORESEARCH

A mother comes in with a sick baby. On exam, the physician notices that the infant's back and chest are covered in striped bruises. Should the woman be reported for child abuse?

First—especially if the family is of Southeast Asian descent—the doctor should inquire if the baby has undergone coin rubbing, a traditional therapy in which patients are vigorously massaged with hot oil and the edge of a coin or spoon. It's not abuse; it's an ancient form of healing meant to balance yin and yang.

That's just one lesson in multicultural understanding that Weill Cornell Medical College in Qatar (WCMC-Q) aims to impart. Since last year, the Qatar branch has been giving its students training in cultural competence—a vital topic in a polyglot nation where many residents are expatriate workers. According to a 2007 survey, only 45 percent of the Qatari population speaks Arabic; the rest speak Hindi, Urdu, Bengali, Farsi, Tamil, and a host of other tongues. In 2008, a random sampling of some 1,600 patients at Hamad Medical Corporation, WCMC-Q's teaching hospital,

found more than three dozen languages spoken. "Students must be able to work with these diversified populations," says Maha Elnashar, who is directing the branch's Center for Cultural Competence in Health Care. "Many of WCMC-Q's students will do their residencies in the States, so they need to be able to deal with different populations and work in any setting."

In addition to offering patient interpretation services in several major languages, the Center conducts workshops for medical students, who receive about ten hours of training in each of their first three years. Among the lessons: in Qatar, female patients often refuse to see a male doctor, particularly for ob/gyn—so male physicians shouldn't consider it a referendum on their abilities. "We speak about the importance of involving the family and understanding family dynamics," Elnashar adds. "For example, a female patient might like to check with her family about a procedure—it is considered a shared decision."

Third-year student Nadia Merchant has found such training highly valuable, calling it a "great opportunity" for students to put their clinical experiences into a larger context. Born in Houston to an Indian mother and a Pakistani father, Merchant lived in Texas and Saudi Arabia before enrolling as a pre-med in WCMC-Q's accelerated program. "Even though I have traveled all over, attended several international American schools, and have friends from around the world, I still found it difficult to understand the spectrum of cultures we see in the hospital," says Merchant, who hopes to do a residency in pediatrics and genetics in the U.S.

She recalls the case of a patient, extremely sick with stomach cancer, who didn't speak Arabic, English, or Hindi—the three most common languages in Doha—and had no family in the city. "I found it difficult to communicate with the patient to explain his prognosis and management," says Merchant. "Even though we tried to give him the best care we could provide, I felt empathy toward him since he was unable to express his concerns and questions. The cultural competence course helped in discussing situations such as these and showing us how we should go about dealing with them."

The workshops and talks teach students that

language, religion, and nationality aren't the only issues that can complicate patient care. Third-year student Nasser Mohamed, a native of Qatar, cites the case of a middle-aged laborer who came into Hamad's coronary care unit after suffering a heart attack. Considering the patient's history, Mohamed recalls, doctors recommended an arterial stent followed by a lifelong regimen of anticoagulant drugs—but he refused. “One of the major areas covered in the cultural competence course was considering the patient's socioeconomic status in choosing a treatment option,” says Mohamed, who's contemplating a psychiatry residency in the U.S. “After further questioning, we realized that the patient could not pay more than half of his salary every month to buy the drugs.” (Ultimately, Mohamed says, the patient was treated free of charge.)

Although Qatar's diverse population makes cultural competence a particularly pressing issue at WCMC-Q, it is becoming a priority on every medical school campus. In 2000, the American Association of Medical Colleges' Liaison Committee on Medical Education underscored the importance of schooling future physicians in cultural nuances when it issued a new standard on the subject for its member institutions. “The faculty and students must demonstrate an understanding of the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments,” the standard reads. “Medical students should learn to recognize and appropriately address gender and cultural biases in health-care delivery, while considering first the health of the patient.”

The AAMC has created an instrument for medical colleges to gauge how well their curricula further those goals. Known as the Tool for Assessing Cultural Competence Training (TACCT), it quantifies whether courses and clerkships address such topics as stereotypes, health-care disparities, traditional healing systems, and ways to combat bias. As the AAMC notes in its guide to cultural competence education, “The TACCT permits gaps to be identified, as well as planned and unplanned redundancies that will allow schools to make the best use of opportunities and resources.”

At WCMC-Q, Elnashar and colleague Huda Abdelrahim are creating an instrument to assess patient care. With a three-year grant from the Qatar Foundation, they're developing a tool for gauging how patients from different backgrounds view the quality of their health care, to be administered in Arabic, English, Hindi, and Urdu. “Each patient is unique; hence, it is important to understand their culture and values while treating them,” says Merchant. “We cannot impose our values—or the values of the country—on the patient.”

— Beth Saulnier



FOTORESEARCH

Just for KICS Group pairs student volunteers with young cancer patients

When Danny Lee '12 was matched with his “buddy,” a seven-year-old bone cancer patient from Brooklyn, he assumed that their relationship would revolve around the boy's medical condition. “At first I thought, He's on chemo, I'm going to feel bad for him,” recalls Lee, a New York City native with an interest in gastroenterology. “But although his illness was always in the background, that wasn't all there was to him—and you can lose sight of that when you're a doctor. You can forget the humanistic side, putting a person in the context of their life.”

Lee spent time with the boy last year through Kids in Cancer Support (KICS), a Weill Cornell group that pairs medical students with children and adolescents undergoing cancer treatment. Volunteers generally spend an hour or so at a time with patients as they're undergoing chemotherapy infusions—coloring, playing games, or just chatting. “It's nice for the kids to have someone who's relatively young—not their parent or a sibling, just somebody who wants to hang out with them,” says KICS copresident Molly Smith '12, who often talked baseball with her nine-year-old buddy. “It distracts them from their treatment. We're medical students, but we're not there for any medical purpose. We're not wearing a scary white coat, and we're not there to poke them. We just want to talk to them and have a little fun.”

The program provides the volunteers with modest gift cards to buy snacks or other treats; Lee would come armed with the car magazines his buddy enjoyed. “The patients sit there for two to three hours while they get their treatment, so it's pretty boring,” says Lee, who also visited his buddy in the hospital when complications required an inpatient stay. “There's a TV, but there's not much else to do.” Both he and Smith note that the visits play another vital role: offering parents a brief respite from the demands of caring for a sick child. “My buddy always came in with his mother, and it gave her some time off,” says Lee, who earned a BS in hotel administration from the Ithaca campus in 2003. “She tended to go to the bank, because she never had time to run errands.”

The program also benefits the dozen or so Weill Cornell students who participate each year—there are always more volunteers than patients, Smith says—offering both a break from academics and a view of medicine from the family's perspective. “It reminded me why I came to med school,” says Lee. “In the first two years you spend so much time learning basic sciences, it can be a real drag. Being able to take yourself out of that, to put a face to what you're doing, really motivates you.”

— Beth Saulnier

Genetic Anomaly

A physician's half-century-long effort to understand cancer by studying a rare syndrome



JOHN ABBOTT

James German, MD

In 1960, Susan B. was ten years old when a New York City dermatologist referred her to James German, MD, for a chromosome analysis. The unusually small but generally well-proportioned child weighed less than thirty pounds—the size of an average three-year-old—and she had a sun-sensitive redness of the skin extending from the bridge of her nose across her cheeks.

The dermatologist was David Bloom, MD, who had written an article in the *American Journal of Diseases of Children* about three individuals who bore a striking resemblance to Susan B.—in fact, she was one of the three. She had what is generally referred to today as Bloom's syndrome.

A year earlier, a Parisian scientist had reported that people with the mental deficiency

known at the time as mongolism did not have the usual forty-six chromosomes but one more—an “extra” copy of trisomy 21, one of the smallest. Bloom wondered whether the syndrome he had observed might also be caused by an extra or abnormal chromosome—thus his call to German, who was the first in New York City to study human chromosomes using a new technique invented in the Texas laboratory where he had developed his lifelong interest in the cell.

“Even though the cause of Bloom's syndrome was unknown, I didn't think the study of the child's chromosomes was indicated,” recalls German, who was fairly certain that the condition was a recessively inherited genetic disorder—which would mean that the chromosomes would be normal in both number and structure. At the time, German was a junior member of the faculty at the Rockefeller Institute; Bloom had gotten his name from a private patient who happened to be one of German's senior colleagues on the Rockefeller faculty. So the young physician-scientist—who had just begun the study of human chromosomes in Rockefeller's Laboratory of Heritable Disorders in Man—drew some of Susan's blood, stimulated the white cells to proliferate in culture, and put some of the dividing cells under his microscope.

What German saw would launch a half-century of investigation that has yielded new insights into both fundamental genetics and the cause of human cancer. Like all people with Bloom's syndrome, Susan had the standard twenty-three pairs of chromosomes. But unlike any other human chromosomes that he had analyzed, hers often had gaps and breaks. “I wanted to know what it meant,” says German, a professor at Weill Cornell since 1963. “The genetic material itself, the DNA, was being damaged. It seemed highly improbable that such a dramatic thing would not have some important biological significance.” German asked Bloom if he knew of other people with the syndrome, so he could examine their blood. When he did, he found that they too had what he began to call “chromosomal breakage” and today is known as genetically determined genomic instability.

In 1963, Susan developed acute leukemia; within six weeks, she was dead. Then others in the small cohort of individuals with Bloom's syndrome that German had assembled began to succumb to cancer, and he began speculating about the role of all the chromosomal damage that was taking place in their cells.

In a collaboration that would persist until Bloom's death in 1985, German and Bloom traveled together to Appalachia, Philadelphia,

Baltimore, Boston, Toronto, Mexico City, Paris, Tel Aviv, and Jerusalem, interviewing the parents and physicians of those with the condition. Traveling solo, German made forays to Western Europe, Israel, and Japan. “We searched far and wide for people with this very rare disorder,” he says. Today, his records hold files of 267 people with Bloom’s syndrome, with clinical case histories, genetic histories, and experimental laboratory records for every person diagnosed with the syndrome anywhere in the world.

Those records have yielded a wealth of insights. First, German was right about recessive inheritance. Nearly a third of the people with the syndrome are, like Susan, Ashkenazi Jews. Another third are the progeny of first-cousin marriages, which increase the risk of rare recessively inherited traits. And also like Susan, who died at thirteen, people with Bloom’s syndrome die young—mean life expectancy is just twenty-five years.

In 1969, German published his theory on the role of genetic mutation in cancer, but it wasn’t until the mid-Nineties that he and his colleagues could identify the so-called primary defect of Bloom’s syndrome, thanks to recombinant DNA technology. They mapped the Bloom’s gene to a specific band on chromosome 15 and then cloned that gene, thereby identifying the protein whose normal biological function is absent in the syndrome. “That protein, named BLM, is present also in bacteria, yeast, vinegar flies, mice, amphibians, and even plants,” says German. “It has been tenaciously conserved throughout evolution because it plays such an important role in maintaining the stability of the genetic material.”

Today, German continues his investigations in collaboration with Maureen Sanz, PhD, a Weill Cornell colleague who is also on the faculty of Molloy College. He also serves on the scientific advisory board of the Bloom’s Syndrome Foundation, established in 2004 by a Hollywood producer and his wife whose son has the condition. German now devotes most of his time to writing *The Bloom’s Syndrome Story*, a book that, he says, “will emphasize that even in the age of molecular biology, clinical investigation is definitely still alive and well.”

— Sharon Tregaskis

Social Studies

Student party planners help classmates balance work and play



JOHN ABBOTT

Big event: Performers at this year’s class show, always among the most popular ways to blow off steam for first-year medical students

Every two weeks, first-years at Weill Cornell are tested on their medical knowledge. After the quizzes and exams are over, they have a little something to look forward to: ice cream parties, happy hours, or other social events, all organized by fellow students who serve as party planners.

Part of the class council, “social chair” is an elected position that students hold through their four years of med school. Each class’s team of four social chairs is allotted \$1,000 per year to fund the events, which can range from small wine-and-cheese parties to larger gatherings like a school-wide Halloween bash or a mixer open to all New York City medical students. “We can organize a party in the lounge for after a big test,” says social chair Adam Faye ’13. “If there’s a season premiere of a TV show that everyone wants to watch, or a football game like the Super Bowl, we can pay for the pizzas. We had a ‘Sundae Sunday’ where people brought in bowls and spoons, and we supplied the ice cream and toppings.”

Given the stress and workload of medical school, says social chair Matthew Inra ’13, such outlets are vital to morale; they also offer a way for students to get to know each other and bond as a class. “It’s good to have a balance so we don’t go crazy,” he says. “With all the tests and labs, it’s easy to get burned out, and social events give us a release.”

— Erica Southerland





The Show Must Go On

The Center for the Performing Artist offers comprehensive care for creative types, from ballet dancers to rock stars

By Beth Saulnier

Photographs by John Abbott

Paul Schaefer had been in the Broadway production of *The Phantom of the Opera* for nearly three years when he had his first full-scale rehearsal for the title role. The tenor-baritone had performed various parts in the ensemble and understudied Raoul, the viscount who battles the Phantom for the love of the beautiful Christine. Then, on a Thursday in December, he had a “put-in” rehearsal as the Phantom—those precious hours when an actor runs through a role he’s understudying, not just with a stage manager or musical director but onstage with the entire cast.

Music of the night: After successful vocal cord surgery, Paul Schaefer has been understudying the title role in Broadway’s *The Phantom of the Opera*.

It was a lucky thing, too. In a twist straight out of a stage-door drama, the actor playing the Phantom called in sick that afternoon. Schaefer had to go on that night—and a half-dozen times over the next few days. “Vocally, the Phantom is so difficult—it’s one of the most difficult parts I’ve ever sung,” says Schaefer, a veteran performer whose credits include the national tour of *Thoroughly Modern Millie*. “He’s very intense; he has a huge range and he sings all this high stuff. He comes in, and right away he starts blasting at the top of his range.”

It’s a role that would challenge any singer, and Schaefer’s ability to pull it off only underscored how far he’d come. Two years earlier,

just months into his tenure in *Phantom*—his Broadway debut—Schaefer had experienced voice problems so severe they had required surgery. “When I was able to do the role—not only do it, but for five or six shows in a row and still feel strong—I felt like I had reached a landmark,” he says. “My voice was solid; it wasn’t taxed. I couldn’t believe that I had finally gotten back to that.”

In large part, Schaefer credits his vocal recovery to the surgeon who operated on him: Lucian Sulica, MD. An associate professor of otorhinolaryngology, Sulica is among the specialists at the Center for the Performing Artist at NewYork-Presbyterian Hospital/Weill Cornell Medical Center. Established in 2008, the Center offers comprehensive care for performers in a variety of fields—cellists to ballet dancers, opera singers to rock musicians, piano prodigies to Broadway stars. It comprises some thirty physicians—in such specialties as neurology, gastroenterology, pulmonology, rheumatology, and psychiatry—who see patients through their individual practices; it also offers physical therapy, speech pathology, and audiology. “‘Center’ is probably the best word, but it doesn’t fit particularly well,” observes orthopaedist Robert Hotchkiss, MD, an expert in disorders of the hand and upper extremity, who notes that care occurs throughout the medical center.

One of a handful of programs of its scope

Lucian Sulica, MD



around the country—another is located at the Weill Cornell-affiliated Methodist Hospital in Houston—the Center is geared toward the needs of serious artists. (Although some such practices require professional certification such as a union card, NYP/Weill Cornell’s is less restrictive, and some patients are dedicated amateurs.) “One thing that often happens with artists is that they get fragmented care,” says otorhinolaryngology chairman Michael Stewart, MD, MPH, senior associate dean for clinical affairs and the Center’s director. “They go to this specialist and that super-specialist, and they get good individual care, but each physician doesn’t know what the other has done. They don’t have a connected medical record, and there’s no ‘captain of the ship’ who knows what’s going on. So our Center provides not only expertise for specific problems related to performing artists but coordinated communication among the doctors.”

As Stephen Sondheim wrote in the Broadway musical *Sunday in the Park with George*, art isn’t easy. A career as a professional artist is highly demanding, not only psychologically and emotionally but often physically as well. At the Center, the most common conditions requiring treatment are voice and speech-related problems in actors and singers; hearing loss and neurological conditions like tremors and dystonias (abnormal muscle movements) in musicians; and bone and joint problems in dancers, typically of the foot, ankle, hip, or knee. “They’re an interesting group of patients,” Sulica says. “They force you to be on your game. For somebody who is an average voice user, you can do an OK assessment and an OK surgery and their result is fine. But with somebody who sings or speaks for a living, you’ve got to do the best possible job. It’s a unique challenge.”

Professional artists, Sulica says, are exquisitely sensitive to subtle problems or changes that can affect performance—and appreciating that is essential to treating them successfully. “Artists are frequently sidelined or bothered by complaints that in the general medical scheme of things seem trivial or quixotic,” he says. “If physicians aren’t keyed in to that level of sensitivity, patients are not going to get much help. Voice disorders are a perfect example. If somebody comes in and is audibly hoarse, has trouble swallowing, and smokes three packs of cigarettes a day, every physician’s going to take that seriously. But if somebody comes in and says, ‘I’m having trouble completing my eight-show-a-week schedule, and I’ve lost a bit of control in

the upper end of my range,' that's a threat to that person's career—but many otolaryngologists are going to roll their eyes, or shrug and say, 'I don't know what to do.' "

As an example, Sulica cites the current epidemic of acid reflux diagnoses; the condition, he says, has become a common scapegoat for vocal problems. "Too often somebody goes to the doctor with a complaint of voice change, and the otolaryngologist looks at the vocal cords and doesn't see anything, because some of these issues are very subtle and require specialized instrumentation," he says. "And when they don't see anything they say, 'You need reflux medicine.' They'll even recommend people to gastroenterologists rather than take a careful look at the vocal folds. It's not malice; they're just not aware that there can be things that subtle on the vocal cords."

Schaefer sought treatment when, in the midst of a brutal rehearsal schedule after joining the cast of *Phantom*, he developed "tons of respiratory infections" and serious problems with his normally robust singing voice. He went to Sulica for a second opinion, feeling that his problem might not have been diagnosed correctly. At the Center, Sulica examined him with strobolaryngoscopy, in which a strobe light is triggered by a microphone, capturing images of the vocal cords as they vibrate; the physician calls it a "game-changing technology" that provides a far more detailed picture than a traditional laryngoscope.

When strict vocal rest didn't help—"My wife became good at reading my lips," says Schaefer, who's married to a fellow thespian who danced in the Broadway revival of *A Chorus Line*—he underwent a three-hour operation in which Sulica removed a large hemorrhagic polyp from beneath his vocal fold. As part of his rehabilitation, Schaefer also had speech therapy through the Center. "Not only did I have a speech therapist, I had a speech therapist who was an opera singer," he says. "She was able to focus not only on my speaking, but on retraining my voice. You don't want to develop the same problems again."

While Schaefer is open about having undergone vocal cord surgery, many performers are more reticent. In contrast to injured sports stars, Sulica says, artists rarely see their ailments as emblems of valor. "If a football player gets hurt, there's a positive vibe—you injured yourself because you played hard, not because you played badly, and the doctors are going to do what they can to get you back on the field," he says. "Different scenario: a singer injures herself during a performance. The first assumption made by the singer is, 'What am I doing wrong?' And frequently the answer is, 'Nothing, you're just doing eight shows a week.' The other



Robert Hotchkiss, MD

assumption is that it's a career ender."

As a result, Sulica says, vocal cord problems are stigmatized; performers in demanding shows may fear that if they admit they're having trouble, they'll be replaced by one of the many aspiring actors desperate to make it to Broadway. "What happens in that environment is that when people have successful vocal cord surgery it's hush-hush—and when people have a bad result, you hear about it," he says. "Everybody's heard the Julie Andrews story. So when they come to the doctor, they're cranked up with anxiety and think they're on the brink of career disaster."

The Center's physicians know that when artists seek treatment for performance-related problems, they're entrusting them with their livelihood. That makes caring for singers, actors, dancers, and musicians a highly gratifying field—but one where the stakes are high. And while mainstream patients tend to see their long-term health as the primary concern, performers are often willing to take a calculated risk for the sake of their art. "It's like taking care of professional athletes; they want to play," says Stewart. "The risk-benefit ratio may say that you don't want to take a chance, but they want to be out there on the stage. If they see somebody who is not used to taking care of artists, they're going to get a conservative view—'The best thing to do is cancel the show'—but the artist

Michael Stewart, MD



Richard A. Friedman, MD



won't go for that. You need to understand the artist's psyche: it's important that the show go on, so how can we get you through it without endangering you?"

For Hotchkiss, one of the field's most interesting aspects is working with performers at varying moments in their careers and tailoring their care accordingly.

Consider, for example, a musician with a compressed nerve in the hand that could lead to permanent damage if left untreated. Does she have the luxury of a month's downtime, having just recorded an album—or is she about to go out on a long-scheduled world tour? Even everyday ailments—from a wrist broken in a fall to the normal effects of aging—are much more fraught when the patient's body is a finely tuned instrument. "This is a different group of patients," Hotchkiss says. "We all have insights into the frailty of the human condition, but this is a different kind of frailty."

While some physical conditions are common to artists at all levels of success—from carpal tunnel in string players to lung and larynx problems

Stage Fright

There's no tiger
in the audience;
it's just performance
anxiety

Singers can have problems with their vocal cords; dancers can suffer injuries of the muscles, joints, and bone; musicians can have hearing loss and nerve damage. But for some of the patients seen by Richard A. Friedman, MD, the trouble can be traced to another part of the body: the mind.

One of three psychiatrists affiliated with the Center for the Performing Artist, Friedman has treated many cases of performance anxiety. He recalls one patient, a promising young pianist whom Friedman had happened to see perform. "I was struck by the fact that his report on his experience playing was completely unlike what you would see as a member of the audience," says Friedman, a professor of clinical psychiatry at Weill Cornell. "What he projected was confidence, calm, and mastery; what he experienced was terror, anxiety, and inhibition. It was the opposite of his public persona, which goes to show you how distorted social anxiety makes people."

Friedman calls performance anxiety a common condition that has little to do with technical competence; rather, it's an emotional problem. "Psychologically, what's at the root of it is a series of beliefs—usually false—about how terrible things are going to go," he says. "'I'm going to embarrass myself and it will be the worst thing in the world. My career will be over. One false move, one bad note, and I'm finished.' And of course, that provokes more anxiety—and the more anxiety, the more negative and distorted your thinking becomes. So in a way, you're your own worst enemy."

Performance anxiety can be treated psychologically, with methods like cognitive behavioral therapy to break the cycle of negative thoughts. Patients are guided in contemplating the actual consequences of making a mistake—what's the worst thing that could happen, really?—or to question whether the audience is as hypercritical as they fear. It can also be addressed medically, with beta blockers like propranolol to curb such symptoms as sweaty palms, jitters, and "butterflies" in the stomach. "Social anxiety is a fundamental, hard-wired response," Friedman says. "It's part of the fight-or-flight response. Everyone has it to some extent; it's there to help you identify dangers and escape them. We're hard-wired to respond to the saber-toothed tiger, and there aren't any. Yes, a few critics in the audience have their knives sharpened—but it's not most people."



FOTORESEARCH

'You need to understand the artist's psyche: it's important that the show go on, so how can we get you through it without endangering you?'

In January, Friedman lectured on performance anxiety as part of a continuing medical education event, held at Carnegie Hall and sponsored by Weill Cornell's Center and the Methodist Center for Performing Arts Medicine in Houston. The first of what is envisioned as an annual event, the course was attended by some fifty physicians from as far away as London. The speakers included Weill Cornell orthopaedist Robert Hotchkiss, MD, a specialist in disorders of the hand and upper extremity whose talk touched on another psychological issue affecting performing artists: the phenomenon of the prodigy.

In some highly driven young performers, Hotchkiss says, stress can manifest itself in somatic conditions, as they push themselves—or are pushed by their parents—to practice for hours on end. "When you have young people saying that their hands are going numb, we always treat these complaints seriously," he says. "But we also have to be aware of the pressure they're under. Many of them have been groomed from an early age to be professional musicians—and it's a pretty steep pyramid." A different breed of problems can crop up as prodigies mature. As course director and Weill Cornell otorhinolaryngology professor Lucian Sulica, MD, puts it: "There's a psychological challenge to suddenly not being exceptional. The hard thing about being a prodigy is that eventually the rest of the world catches up with you."

in those who play wind instruments—Hotchkiss notes that treating a star has its own special challenges. For one thing, there can be wider considerations at play, since the health of one celebrity can affect the livelihoods of many people. It's not easy to cancel a tour when you have agents, managers, concert promoters, roadies, and backup singers counting on you, not to mention legions of ticket-buying fans. Then there's the fact that a star patient often comes with a coterie of advisers, all with their own opinions and interests. Says Hotchkiss: "You have to be comfortable with the fact that, in general, these patients have enormous numbers of people helping—and, maybe unwittingly, not in a very helpful way."

And there's an all-too-human danger: that the physician might get star struck. Although being invited backstage after a performance can be gratifying and flattering, Hotchkiss says, it's important not to compromise the doctor-patient relationship—to become less a physician than a fan. "Fame is certainly a mixed blessing," he observes. "Part of your role is to normalize the relationship. At one level, you have to be acutely sensitive of who they are—but in your interactions, you almost have to pretend that you don't care." ●

The Pioneers

Ten years ago, Weill Cornell graduated its first class of doctors trained in a problem-based curriculum—a radical departure from traditional medical education. How has it shaped their careers?

By Anna Sobkowski

Even before the Class of 2000 matriculated in August 1996, it was already unique. So many applicants had accepted the Medical College's offer of admission that the school took the unusual step of asking for volunteers to defer enrollment in return for a year's free tuition. "Normally, the admissions process is finely calibrated and the school knows exactly how many students to accept to fill a class of 101 to 104," says Carol Storey-Johnson, MD '77, senior associate dean of education. "That year, after only a handful volunteered for the deferment, the class expanded to 114 students. Just from the perspective of sheer size, the Class of 2000 was in a class of its own."

The major reasons for this spike in interest, says Storey-Johnson: a new curriculum, inaugurated that fall, that called for students to spend less time in formal classroom settings and emphasized low faculty-student ratios—plus the opening of the Weill Education Center, with twenty-two classrooms, each configured to accommodate ten students for small-group learning and outfitted with state-of-the-art electronics to support the new curriculum. "I remember that some of the furniture was still wrapped in plastic when we arrived for classes," says Edgar Figueroa, MD '00, who has been director of Student Health Services at Weill Cornell since 2006. "The facilities were brand new, the curriculum was brand new,

ISA PERRY EMERGENCY

EMERGENCY

NewYork-Presbyterian
The University Hospital of Columbia and Cornell
EMERGENCY MEDICINE

DOODNAUTH HIRAMAN, MD
ATTENDING PHYSICIAN

Doodnauth Hiranman, MD '00



2000 SAMARITAN

Miriam Hoffman-Kleiner, MD '00



2000 SAMARITAN

Graduation day: Christina Cellini with her parents in 1996, when she earned her undergraduate degree from Cornell.

and the students were brand new. We were starting out on an exciting adventure together.”

But like all adventurers, the members of the Class of 2000 weren't sure what lay around the next bend—so their excitement sometimes mingled with anxiety. “All of us were used to the way we were taught in college—sitting in large lecture halls, memorizing loads of material, taking big midterms and finals,” says Miriam Hoffman-Kleiner, MD '00. “Now we were learning in small groups, taking frequent smaller quizzes, finishing with lectures and classes by 1 p.m., shadowing doctors, and having a great time. Was this medical school? We were having so much fun, we wondered: are we being adequately prepared to pass our boards?” The answer was yes—the Class of 2000 performed exceptionally well on Step 1 of the USMLE and on all subsequent steps of the licensing exams.

Until 1996, Cornell's curriculum, like that of most other medical schools, was largely based on full days of lectures and labs. Interaction with professors tended to be minimal. Under the leadership of Daniel Alonso, MD, senior associate dean of education at the time, and other faculty and administrators, Weill Cornell moved away from the lecture-based model to a hybrid that combined Problem-Based Learning (PBL) sessions, some lectures, weekly or biweekly quizzes, and journal clubs, where articles related to the issues being studied were critically assessed.

PBL, as it applies to medical school, asks small student groups to address issues related to carefully designed hypothetical patient cases. In the process, students gain both basic science and clinical knowledge, improve problem solving abilities, and enhance diagnostic skills. Students assume increasing responsibility for their own learning, making them more motivated and raising their sense of accomplishment—setting the pattern for becoming independent, life-long learners. Traditional teacher-student roles change as well: the faculty become tutors and evaluators, guiding the students in their problem solving efforts.

It was a big change—and some of the students in the vanguard of the new program had trouble



PROVIDED

Christina Cellini, MD '00

adjusting. “I was always someone who studied hard and did well on tests, so it was a shock whenever I got a so-so grade during that first year in medical school,” says Christina Cellini, MD '00. “I wasn't used to a situation where I could get 100s on all the quizzes but then have my grade brought down because I didn't participate that much in the small group settings.”

Cellini, who earned an undergraduate degree from the Ithaca campus in 1996, says she was particularly unnerved the first time she took a “Triple Jump” exam. These tests, given at the end of each of the basic science courses taught in the first and second years, are named for the three hurdles that students must clear during two days of testing. In the first phase, they analyze a case similar to one they've seen in a PBL session and have two to three hours to answer essay questions. Then they receive the second part of the case and gather in groups to review both parts; the goal is to work as a team in a manner similar to the clinical consultation process. The next day, for the third jump, each student sits for an individual oral exam with a

faculty preceptor. "It was stressful for me to get the results from the problem-based part of the exam and find out I had gotten some things wrong just as I was preparing for the oral part the next day," Cellini recalls. "I started to question whether this type of learning, which I felt in some ways was subjective, was right for me. Maybe this wasn't a curriculum I could shine in, and that would have a negative effect on my choice of residencies."

Gradually, though, things turned around. "After a while I began to realize that I was going to have to overcome the biggest hurdle, which was my reluctance to speak in a group, because that was affecting my grades," Cellini says. The watershed moment came early in her first year, when Cellini's interest was piqued by GI medicine. After shadowing a gastroenterologist at Weill Cornell, she was paired with a colorectal surgeon at Sloan-Kettering—where she gleaned the importance of making herself heard. "On rounds, no one knows what you know unless you tell them," she says. "This is especially true in surgery, where residents and attendings are constantly rushed and you have fewer opportunities to explain to them what you know. Being exposed to this reality early on helped me later during clinical rotations, on oral exams, and as an attending myself."

Cellini went on to a general surgery residency at Weill Cornell and spent three years doing research in pediatric surgery, concentrating on fetal nutrition. After completing a fellowship at Washington University in colorectal surgery, she is now an assistant professor at the University of Rochester. "I try to reach out to quiet students," she says, "because I have vivid memories of what it was like to feel swallowed up by people who were more comfortable speaking in public." She adds that in hindsight, the early clinical exposure, working in teams, and being forced to adjust her approach to learning had a profound impact on

her choice of specialty and the way she practices. "By the end of med school," she says, "I became a more confident and stronger person."

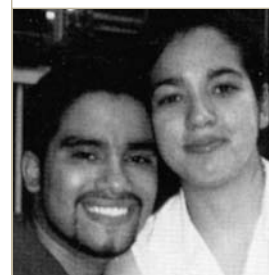
The course that was introduced with the new curriculum—Medicine, Patients, and Society (MPS)—was often slammed as too "touchy-feely" and "non-science-y" by the Class of 2000. Figueroa says he hears the same concerns from the students he now cares for. "Even though we complained about it, it turns out that what we learned in MPS informs the way we practice medicine to this day," says Figueroa, who did his residency at NewYork-Presbyterian Hospital/Columbia University Medical Center and is board-certified in family medicine. "Medical ethics, communication, physical diagnosis and mental status examination, nutrition, clinical epidemiology/biostatistics, evidence-based medicine, health systems—those subjects are all covered in MPS. They make up a body of knowledge and skills that a physician must be comfortable with, no matter what specialty he or she winds up in."

For many members of the Class of 2000, the highlight of the MPS course was the one afternoon each week they spent in physicians' offices throughout the New York metro area. Hoffman-Kleiner shadowed a pediatrician on Long Island and an internist on Manhattan's Upper East Side. "Today, the idea of a student at such an early stage of training going into doctors' offices is not so novel, but at the time it was," says Hoffman-Kleiner, who did her family medicine residency at NYP/Columbia and is board-certified in family medicine. "The doctors were wonderful about integrating us into their practices even though we were novices. For us, putting on a white coat once a week and interacting with patients and doctors was a transforming experience."

As a student, Figueroa covered a wide range of specialties: he shadowed an internist/endocrinologist in a solo practice in Brooklyn, a urologic oncologist at Sloan-Kettering, a pediatrician in a group practice on the Upper West Side, and a behavioral neurologist at NYP/Weill Cornell. "By observing doctor-patient interactions I understood the attributes that I hoped to emulate as a

'Even though we complained about it, it turns out that what we learned in MPS informs the way we practice medicine to this day.'

Edgar Figueroa



2000 SAMARITAN

Student days: Edgar Figueroa, MD '00, with his future wife, Cathy Cabrera-Figueroa

Gowned up: Crista Johnson, MD '00 (left), at commencement with Keisha DePass, MD '00



PROVIDED BY DR. CRISTA JOHNSON

2000 SAMARITAN



'The fact that I could jump right into seeing patients early on was exciting.'

Doodnauth Hiranman

physician, as well as some of the behaviors I hoped I could avoid," he says. "As I became more skilled, I was able to assist the physicians and interact more closely with patients, which built up my confidence, because I was usually pretty shy and quiet in class."

For Doodnauth Hiranman, MD '00, who earned a bachelor's degree from Cornell in 1996, having the opportunity to work with patients in his first year was a major draw. "Even as an undergrad, when I volunteered with the local EMS in Ithaca, I knew I wanted to be an ER doctor—so the fact that I could jump right into seeing patients early on was exciting," says Hiranman, an attending in emergency medicine at NYP/Weill Cornell. Finishing classes by 1 p.m. left Hiranman time for activities such as the Emergency Medicine Interest Group. "I know a lot of students may have felt they needed more time studying 'real' subjects, but I found great value in learning how to take a patient's history, help with smoking cessation, and breaking bad news—some of the topics covered in the MPS course," he says. "These are things that most curriculums don't spend much time on, but I call on this early training every day in the ER."

After graduation, Hiranman completed a four-year residency in emergency medicine at Bellevue—rotating through pediatrics, the PICU, pediatric and adult anesthesia, and the cardiac ICU, among other specialties. He returned to Weill Cornell as an attending in 2004 with a passion for teaching. Recently, he began night shifts in the ER so he'd have more time to work with students in the Clinical Skills Center—including the MPS course—and as director of medical simulation for the Department of Emergency Medicine. He also mentors emergency medicine residents and is faculty adviser to the Emergency Medicine Interest

Group. "I felt our curriculum offered the perfect mix of lectures and small group learning," Hiranman says. "We had course outlines, and it was up to our small groups to go off, learn about a topic, and bring information back to our fellow students. We covered everything, but in non-traditional ways. This way of teaching encouraged us to be independent thinkers."

Every Monday, each student in a PBL group receives a hypothetical patient scenario and, without the professor's guidance, is asked to research the clinical problem. In the next session, the professor elaborates on the scenario, challenging the students: "You've done 'abc' and the patient is getting sicker. What now?" By the third session, the students are expected to come to conclusions about the problem; at this point the professor offers guidance. The dry-erase boards in the classrooms fill up during PBL sessions as students brainstorm ideas.

Finishing classes by early afternoon allows ample time to study course materials independently and to research topics assigned for PBL groups, as well as to participate in extracurriculars. Hoffman-Kleiner volunteered for a program that trained her as a labor coach for teenage mothers, which meant she had to carry a beeper and be on call at all times, and also helped direct and write class shows for three years. Her class was "incredibly bonded" as it went through its four-year journey, she says, helping each other and interacting closely with faculty. "If we complained about something, the faculty and administration really listened," she says. "Since we were the first, they encouraged our feedback."

Today, as a family physician and director of the family medicine clerkship at Boston University School of Medicine, Hoffman-Kleiner says the problem-solving and teamwork skills she learned at Weill Cornell form the backbone of her approach. “Our practice is set up in teams—in addition to physicians, we have a nurse practitioner, nurse, medical assistants, and medical students,” she says. “Medicine is increasingly moving away from silos; a lot of literature and evidence on patient safety and improved outcomes points to the benefits of a team-based approach. I feel lucky that I was introduced to this method of practice early on in med school.”

“Lucky” is also a word Crista Johnson, MD ’00, uses—noting that Weill Cornell gave her the opportunity to identify her specialty early in her studies. In the summer of 1997, Johnson received a Barr Research Fellowship, an award given to Weill Cornell students to pursue research between their first and second years. She went to Buffalo to study how Somali immigrant women who had undergone genital cutting in their native land were faring in the American health system. “The trajectory of my career started that summer,” says Johnson. “The experience cemented my interest in developing better health care for immigrant women.”

After finishing her ob/gyn residency at George Washington University Medical Center, Johnson wanted to conduct rigorous research on how to improve sensitivity in the health-care community to the unique issues of this population. She won a Robert Wood Johnson grant to spend a year at UCLA studying the psychological and sexual impact of circumcision on women. From 2005 to 2008 Johnson was at the University of Michigan, where she studied how to train physicians to overcome barriers to caring for vulnerable populations and earned an MS in health and health-care research.

Today, Johnson is an ob/gyn at the Maricopa Integrated Health System in Phoenix and director of its Refugee Women’s Health Clinic. Launched in 2008, the clinic is the first in Arizona, and only the second in the country, to focus on African immigrant women’s health. Johnson describes her training at Weill Cornell as



PROVIDED BY DR. CRISTA JOHNSON

“truly extraordinary, especially for the attention paid to developing our clinical acumen and decision-making ability. I still value that training. I find that when I do presentations to medical students and faculty, I intersperse a real-life scenario of a case they may encounter in their own practice with a hypothetical clinical scenario. I guess that early training has never left me.”

A century ago, education reformer Abraham Flexner issued a report arguing that medical schools should be more scientific and rigorous. In recent years, many have criticized medical education for going too far in that direction, emphasizing scientific knowledge over clinical reasoning and the development of compassion and integrity. As the new century continues, medical curricula—including Weill Cornell’s—will continue to be re-examined. “We are now in the process of assessing which courses in the first two years should change,” says Storey-Johnson. “Although we get a high caliber of students, they come to us with different levels of preparation, so our next curriculum revision will address that.”

She cites the first-year Molecules, Genes, and Cells course as one that students from liberal arts backgrounds often find helpful, while others with science backgrounds may find too easy. As for the current hybrid curriculum, Storey-Johnson says, “It will remain largely intact, because both students and faculty feel it is doing an excellent job training students to become strong diagnosticians, as well as compassionate physicians. Each year, our classes match into some of the best residency programs in the country.” The Class of 2000, she says, “helped us gain a better understanding of what works and what doesn’t—and subsequent classes have benefited from their experiences and insight.” ●

In practice: Crista Johnson (right) at the Maricopa Integrated Health System in Phoenix with Jeanne Nizigiyimana, program manager for the Refugee Women’s Health Clinic

The Hard Part

On the path to becoming a doctor, mastering clinical medicine is comparatively easy. A required clerkship teaches fourth-years something more difficult: how to navigate the U.S. health-care system.

By Beth Saulnier

Photographs by John Abbott

T

he lecturer launches a PowerPoint presentation and a rather gloomy photo fills the projection screen. It depicts a balding man hunched over a desk in a room filled floor to ceiling with patient records—so many that it looks as if he’s buried in manila folders. “Does anyone know what movie this is from?” she asks. A student identifies it as *American Splendor*, an indie picture starring Paul Giamatti as a beleaguered filing clerk who gains fame as an underground cartoonist. But the citation doesn’t matter as much as the image—one guy drowning in an ocean of paperwork. The headline on the PowerPoint slide: “Most of the American health-care system today.”



or research areas in informatics



In a seminar room in the building that's home to Weill Cornell's public health department, Jessica Ancker, PhD, is giving a talk titled "Health Information Technology: Promises, Pitfalls, and Research Questions." For the next hour, the assistant professor in the Division of Quality and Medical Informatics teaches some twenty students about the plusses and minuses of electronic medical records. She outlines the hurdles the technology could help overcome—from the statistic that up to 30 percent of lab tests are redundant to the fact that for every one hundred patients, a typical physician communicates with ninety-nine colleagues in fifty-three practices. But the benefits of easier data-sharing come with

perils, such as compromised confidentiality.

"It makes it easy to access data you shouldn't necessarily be looking at," one student observes, citing the temptation to nose into the records of celebrity patients.

"Couldn't you do that with paper files?" Ancker asks.

"You could," he says, "but this way it's much easier."

On this Monday afternoon in February, Ancker is a guest lecturer for an innovative course that grounds fourth-year medical students in the workings of the American health-care system. Taught by professor of clinical public health Madelon Finkel, PhD, the required two-week

Body electric: Assistant professor Jessica Ancker, PhD, lectures on the advantages and disadvantages of computerized medical records.

Back to School

It's nicknamed POX, a pithier spelling for POCHS: Perspectives on the Changing Health-Care System. Five times a year, about a dozen internal medicine residents put their clinical obligations aside for a solid week to attend a required block rotation on health policy. "This is a bit of a return to the classroom, which for residents is unusual," says course co-director Oliver Fein, MD, a professor of clinical medicine and clinical public health who also serves as associate dean for affiliations. "It's a fairly rigorous, lecture-based curriculum, but with a number of other things. We're trying to expose young doctors in training to a variety of ways in which medicine is going to be practiced in the twenty-first century."

The course's lectures cover a variety of subjects, such as Medicare and Medicaid, risk management, and the "pitfalls and pleasures" of academic medicine. Participants go on a half-day site visit to the Westchester Medical Group, a 160-member, multiple-specialty practice in White Plains, New York, where residents take a tour and meet with the group's president and medical director. They also attend that week's David Rogers Health Policy Colloquium and Medicine Grand Rounds and get practical tips on topics like negotiating their first employment contract and planning their entry into practice. Each block rotation also includes two debates, in which the residents argue for and against topics like the "public option" in health-care reform.

"As a resident, it's incredibly important to learn this stuff," says Lee Shearer, MD, a third-year bound for a fellowship in adolescent medicine through the Weill Cornell-Columbia combined program. "We spend eighty hours a week for three years learning how to practice medicine—how to take care of patients and prescribe medications, when to order tests, how to manage care. We don't have as much exposure to how the health-care system actually works. How do hospitals run? Who funds them? What implications do the political changes have on me and my career? What kind of advocacy do I want to be involved in? It's being exposed to the nitty-gritty, day-to-day practice of medicine—taking us out of the ivory tower and teaching us some of the practical things that we need to know."

Except for one evening in their respective continuity clinics, the residents have no patient responsibilities and are not on call. That allows them to focus on the intricacies of the health-care system—a factor that many see as particularly valuable. "When you're in the hospital, your mind is with your patients," says Shearer. "And while we try to carve out time for dedicated learning, to some extent you're always worrying about a sick patient, the discharge paperwork that needs to get done, or your pager going off. So it's nice to be a student again, to be granted the leeway to just absorb and learn." Carving out that kind of dedicated time for exploring the health-care system is rare, Fein says. "I don't know of another residency program that does this the way we do it. Sometimes a program will take an hour every fourth week and devote a conference to it, but I don't think you get the intensive, overall picture."

When the rotation was established in 1997, it lasted two weeks; it has since been cut in half due to financial and logistical constraints. While it's currently limited to residents in internal medicine—plus the occasional pediatric resident, geriatric fellow, or chief resident from an affiliated hospital who is allowed to participate—it may someday expand to other departments. Fein notes that when the rotation began, organizers weren't sure how it would go over. "We were nervous, frankly, because it's not clinical," he recalls, "and there's the whole attitude that residents have—or so we thought—that something that is not clinical is not valuable." But like the required clerkship for fourth-year medical students, the block rotation has gotten rave reviews from participants; Fein says that on a scale of 1 to 5, it averages a score of 4.6 or higher.

Among its enthusiastic alumni is Johanna Martinez, MD, who took the rotation as a resident four years ago. Now an assistant professor of clinical medicine at Weill Cornell, she co-directs the program with Fein. "Being an internist and a primary care provider, I see myself as an advocate for my patients, helping them navigate the health-care system and all of its intricacies, so the course was extremely enlightening to me," she says. "If it's complex for a physician who works in the system, you can just imagine how complex it is for a patient."



Oliver Fein, MD

For one intensive week, senior medicine residents get some 'nitty-gritty, day-to-day' lessons

clerkship has been offered since the Medical College curriculum was overhauled in the mid-Nineties. “I always say that clinical medicine is the easiest part of being a doctor,” says Finkel. “Students will have to navigate the health-care system, with all the myriad insurance policies—private, state, federal—and it really is a nightmare. Physicians don’t understand it, and patients certainly don’t. So we felt that by providing an introductory overview of how the U.S. health-care system is set up, organized, administered, and financed, it would help the students be better doctors—to be advocates for their patients and also for themselves.”

The course offers insights into such topics as Medicare and Medicaid, prescription drug costs, health-care disparities, and the public insurance systems of such countries as Canada, Australia, and the U.K. That sort of comprehensive overview is rare among Weill Cornell’s peers, according to Finkel. “We are very much ahead of the curve,” she says. “This is unique. Most medical schools do not have this built into their cur-

riculum. The excuse is there’s no time, the curriculum is already packed with required courses, et cetera. We are one of the few who include this, and not just as an elective. This is required; you cannot graduate without passing this course.”

Giving new MDs a basic understanding of how the health-care system works is seen as increasingly vital—not only by medical students and faculty but also the national body governing medical colleges. In July 2004, the AAMC issued “Educating Doctors to Provide High Quality Medical Care: A Vision for Medical Education in the United States,” a report by an ad hoc committee of deans. Under the missions of the medical education system, the report listed the need to promote “an understanding of the organization, financing, and delivery of health care in the United States.” Five years later, an article in *Academic Medicine* offered an assessment of how well schools were educating students in the complexities of the health-care system. The researchers studied data from more than 58,000 new MDs who had completed the

‘Students will have to navigate the health-care system, with all the myriad insurance policies, and it really is a nightmare.’

Policy maven: Professor Madelon Finkel, PhD, has taught the required clerkship since its inception.





Lively debate: Fourth-year student Faye Robertson (far left) makes a point during a discussion of the merits and pitfalls of electronic medical records. To her right are classmates Erica Greenberg, Marie Bartholdi, David Dayan-Rosenman, and Linda Fan.

AAMC's annual graduation questionnaire from 2003 to 2007, and also compared the responses of more than 1,000 graduates of two otherwise similar (and unnamed) schools: one with intensive offerings in health-care systems, the other without.

The authors found that a large majority of graduating students were satisfied with their clinical training. However, they wrote, "In stark contrast, fewer than half the students felt that appropriate instructional time was devoted to the practice of medicine, especially the component of medical economics." Unsurprisingly, graduates of the school with extensive offerings in health-care systems reported being much more satisfied with their grounding in the subject—and furthermore, the researchers found, such instruction did not seem to come at the expense of other topics.

At Weill Cornell, exposure to health-care policy issues takes a variety of forms. While Finkel's clerkship is required for fourth-year medical students, a similar course is mandatory for third-

year residents in internal medicine (see sidebar). That one-week block rotation is the brainchild of the Medical College's associate dean for affiliations, Oliver Fein, MD, who also coordinates the David Rogers Health Policy Colloquium—a weekly program that draws a diverse, interdisciplinary group of faculty and is especially popular among first- and second-year medical students. (Topics have ranged from the consumerization of genetic testing to a speech by a West Point general condemning torture; the series also includes regular "My Life in Medicine" talks by leaders in a variety of health-care fields.) "My hope is that participants in both the Rogers Colloquium and the block rotation learn to become more creative and positive actors in changing the health-care system," Fein says. "And that they will play a role—not just in how they organize their practices, but also in the professional societies they join and the communities where they live—in shaping how medical care is delivered."

Both the student clerkship and the resident

'I definitely would have been more naïve starting residency if I hadn't taken that course,' says Christin Price, MD '09. 'It has given me a leg up.'

rotation offer a mixture of classroom instruction and field trips. Finkel's students visit medical practices, pharmaceutical companies, government agencies, private and public insurers, and more. "She's so knowledgeable about health-care policy, and she has so many contacts to get people in various areas to speak to us," Christin Price, MD '09, says of Finkel. "Not only was she a great teacher, but she exposed us to a lot of top people in the field." In general, students do site visits in the morning and have seminars in the afternoons; toward the end of the two weeks, they give oral presentations and turn in a paper. But the course content is always in flux. "I give this clerkship six times a year, and every time it's different, because the issues change," says Finkel. "We focus on current political, economic, and social issues pertaining to health-care delivery, and it has to reflect what's going on in the world."

The February session of the course was held in the thick of the controversy over the Obama Administration's health-care reform bill; tempers were running high as the opposing sides hurled invective, and critics of the bill fueled fears of "death panels." As Finkel says to the students: "I think more people are following the health-care debate than the Olympics."

The day after Ancker's talk, the students begin their oral presentations. This time around, Finkel has assigned teams to discuss health-care disparities from perspectives such as race, gender, geography, and sexual orientation. "What we want to focus on today is, what effect does it have on health status?" she tells them. "How detrimental is it, or isn't it?" Conversation turns to a *New York Times* piece from earlier in the month in which Finkel was quoted; the author, an MD, told a story about a former patient whose abdominal incision hadn't healed properly because he couldn't afford the gauze to change the dressing. Such tales are common in the current recession, Finkel tells the students.

In addition to issues of access—the fact that 80 percent of African American patients are seen

by 20 percent of doctors, for example, or that women are more likely than men to have dependent insurance coverage and are therefore more vulnerable to losing it—the students discuss questions of cultural and educational competency. In what languages should patient information be offered? To what grade level should it be geared? After citing a survey that found that only one American in ten has the skills to manage his or her own health care—defined by basic tasks like filling out forms and reading prescription bottles—Finkel offers an anecdote about her husband's ninety-six-year-old Aunt Ruthie. "She takes twenty-two pills a day," Finkel says. "Before she went into assisted living, she was following instructions about taking her medications at breakfast and lunch, but breakfast was at eight-thirty and lunch at eleven-thirty—so she was overdosing."

According to Finkel, student feedback about the course has been overwhelmingly positive; more than three-quarters of exit surveys call it excellent or outstanding. She has also gotten strong feedback from former students now in postgraduate training—like Price, an internal medicine intern at Brigham and Women's Hospital in Boston. "I definitely would have been more naïve starting residency if I hadn't taken that course," Price says. "It has given me a leg up. As an intern, you're constantly dealing with the daily grind; you're so busy that you don't always get the chance to look at the big picture. But having gone through that course has made me pause before I order dozens of tests and scans, to make sure that it's cost effective. If I hadn't taken that class, I'm not sure that I'd do that in the hustle and bustle of internship."

Like the block rotation for residents, the fourth-year clerkship is full-time; students can give it their complete attention, without the pull of patient obligations. "It's a wonderful respite from the clinical curriculum," says Anthony Rosen '10, who plans to specialize in emergency medicine. "As medical students, we're focusing so closely on learning how to manage individual patients. A lot of the time we're quite sheltered from issues of insurance and ability to pay; we seldom get the opportunity to step back and think about what health-care delivery means as a policy issue." ●

Notebook

News of Medical
College and Graduate
School Alumni

Dear fellow alumni:

As I move into the second year of my term as president of your Alumni Association, I am continuing my quest to personally meet as many of you as possible. In March, Spencer Kubo, MD '80, and I organized a dinner at the Omni Hotel in Atlanta for local alumni as well as many others who were in town for the 2010 meeting of the American College of Cardiology. We were fortunate that Dean Antonio Gotto was a speaker at the meeting and hosted our event, which was modeled after a similar regional gathering in Boston last fall.

Hazel Szeto,
MD '77, PhD '77



We were thrilled to have thirty-five Weill Cornell alumni at the dinner—including Rudolph Jones, MD '45, and his daughter, Zoe Jones, MD '79, and Richard Schwartz '60, MD '65, and his son, Michael Schwartz '92, MD '98. It was especially nice to have several younger alumni present, including Philip Peters '95, MD '00, Jodi Accaria-Chitwood, MD '01, and Minal Patel, MD '05. Ten visiting cardiologists joined us, coming from Arizona, Texas, and the Northeast. It was a great opportunity for local alumni to meet; three of them did not know that they all work at

the Centers for Disease Control and Prevention! Dean Gotto updated us on recent events at the Medical College, with news from New York City, Qatar, Tanzania, and Haiti. The evening was a lot of fun, and we are currently taking suggestions for future regional events.

As you may know, the GHESKIO clinic in Port-au-Prince was near the epicenter of the Haiti earthquake and suffered significant damage. The clinic was started by Jean William Pape, MD '75, in 1982 to help fight HIV/AIDS, and has since expanded to treat other infectious diseases. Since the earthquake, GHESKIO has become both a refugee site and a center for emergency medical relief. Currently it is providing food, clean water, and health care to 6,000 refugees camped on the GHESKIO compound. Dr. Pape has asked members of the Cornell community to keep the plight of Haiti in the public consciousness and donate whatever they can. You can follow the events at GHESKIO and make donations at the Global Health department's website (<http://weill.cornell.edu/globalhealth>).

The Reunion Committee, under the leadership of Michael Alexiades, MD '83, is developing an exciting program for the 2010 gathering. At every reunion, alumni have reminisced about the class shows. A survey was recently sent to all of you asking about your involvement in the arts since medical school. Many responded that you have continued to nurture your passion for music, art, and writing, and some have incorporated the arts into your medical practice. We would like you to share your artistic talent with us at Reunion 2010, the theme of which is "Medicine and the Arts: The Alumni Perspective." There will be poetry reading, an art show, and music performances by alumni. The Reunion Committee also has planned events for alumni with young families, so there will be something for everybody. I hope to see all of you there!

With warmest regards,

Hazel Szeto, MD '77, PhD '77

President, CUWMC Alumni Association

hhszeto@alumni.med.cornell.edu

1940s

Robert J. Haggerty '46, MD '49: "The biggest news from the Haggerty family is that Muriel and I celebrated our 60th wedding anniversary this past October. Not too many now achieve this. At my age and fully retired I receive lifetime awards, not ones for current activities. I suppose it's nice that I'm alive to receive them. Two this past year were much appreciated. One was the 2009 Lifetime Award from the Society for Research in Child Development for distinguished contributions to the lives of children; the other two recipients were T. Berry Brazelton and Hillary Clinton. The other was the Distinguished Career Award from the Academic Pediatric Association for the improvement of patient care, teaching, and research in general pediatrics. Hope to attend the 60th Reunion—actually our 61st!"

1950s

Russel H. Patterson, MD '52: "Doing well. Still going back and forth between Manhattan and Vermont. Gave up the airplane in July, which makes the Vermont travel more complicated."

Artemis Pazianos-Willis, MD '55: "I heard from several of our classmates at Christmas. Jan and **Roland Richmond, MD '55**, have continued to travel extensively. Last year they took trips to the Indian Ocean and Persian Gulf as well as the French Riviera. They also had many visits with family and friends within the U.S. They have been married for 56 years and have four children and grandchildren, all doing well. Son Ken has followed in his father's footsteps and is a physician. **Steve Schenker, MD '55**, writes that he has finally retired and is an emeritus professor, but still sees a few difficult patients. His mother is still living at age 103. **Mickey Hollenberg, MD '55**, said he hopes to make it to our 55th Reunion. **Gunter Meng '51, MD '55**, and **Hilde** have had a few medical problems, but they are now well and were visited by their two children and grandchildren over the holidays. **Harned Isele, MD '55**, and **Joan** took trips to Lisbon and Seattle in 2009. I had a wonderful trip with college friends in October along the Turkish coast, into Syria to visit the ruins of Palmyra, and ending in Alexandria, Egypt."

Beverly Deane Shaver '54, MD '58. In

the Winter 2009/10 issue of *Weill Cornell Medicine*, Dr. Shaver's name was misprinted as "Beverly Dean" and her degrees were mistakenly omitted. We regret the errors.

G. B. Lerner '55, MD '59: "I'm retired, living in western Pennsylvania, and enjoying my children and five grandchildren."

1960s

Bart Schmitt, MD '63, is professor of pediatrics at the University of Colorado School of Medicine. "I continue to enjoy seeing patients and teaching three days per week at our Children's Hospital. I write telephone triage and advice protocols for nurse call centers another three days a week. I recently created Pediatric SymptomMD, an iPhone app for parents and grandparents. I hope some of you will give it a test drive."

Irvine G. McQuarrie, MD '65, PhD '77: "Turning 70 seems to have prompted several of my classmates to write to this column and give an accounting, so now I'll try. After training in neurosurgery at New York Hospital, I went into the Navy on the Berry Plan, then came back to finish a PhD in neurosciences under Professor Bernice Grafstein. I completed board certification while attending at NYH, then went to Cleveland for a postdoc in neurosciences. By 1982, I had my own lab at Cleveland VAMC, closing it in 2002 (having trained one grad student and three postdocs along the way). That wasn't a good year. I also closed the Neurosurgery Service, retired from the Naval Reserve, and divorced for the second time. I'm close to my four children, but have a ways to go with my three grandchildren. I'm still full-time at Cleveland VAMC, now as a neurologist doing disability evaluations for traumatic brain injury. The thing I miss most is my 22-year part-time career with the Marine Corps, training corpsmen and overseeing humanitarian assistance missions to developing countries (for which I was awarded the Legion of Merit). I also miss teaching neurosciences and head and neck gross anatomy to second-year medical students at Case Western Reserve University. It's been real."

Robert Pezzulich '61, MD '65: "I retired from general surgery in August 2008 after 35 years in practice. From 1982 until 2004 I also served as chief of staff at Southwestern Vermont Health Care, stepping down to become the principal investigator of a \$1.5M AHRQ grant awarded to study the effect of computerized health records

on patient safety. As part of that, I helped form the Department of Patient Safety within our organization. Helen, my wife of 46 years, and I are enjoying travel (having returned from a week and a half on the Amazon and planning an extensive trip to Vietnam with stays in Thailand and Cambodia) and time with our two granddaughters, who live here in Vermont, and our two grandsons, who live just outside of Boston, as well as their parents. Both the travel and the grandchildren are providing me the utmost opportunities for photography, a love resurrected after retirement. Helen and I are looking forward to seeing as many classmates as possible at our 45th Reunion this September."

1970s

James S. Reilly, MD '72, is president of the Interamerican Association of Pediatric Otolaryngology. The IAPO biannual meeting is being held in Panama City, Panama, in July 2010.

Robert A. Linden '71, MD '75: "I wrote *The Rise and Fall of the American Medical Empire: A Trench Doctor's View of the Past, Present, and Future of the U.S. Healthcare System* (Sunrise River Press). The first two parts of the book examine the impending death of primary care medicine and the nation's health-care insurance distribution model, its faults, and the potential solutions. The last two sections analyze the pharmaceutical industry's infiltration into the science and practice of medicine and the medical malpractice dilemma."

Jean W. Pape, MD '75, founder and CEO of GHESKIO Center, Haiti, received the 2010 Carlos Slim Health Award for his work with HIV/AIDS patients and the introduction of oral rehydration therapy to reduce the mortality rate of children with diarrhea.

Melissa S. Pashcow, MD '76: "My son, Justin Seidenfeld, graduated from Princeton in June 2009 with a major in civil engineering and a minor in environmental studies. He is teaching high school math in a charter school in Memphis, Tennessee. My daughter, Laura Seidenfeld, is an administrator at Sotheby's and was recently engaged to David Teigman, an associate at Sullivan and Cromwell. We are looking forward to a summer 2010 wedding."

Mary K. Crow, MD '78, was appointed physician-in-chief and chair of the Division of Rheumatology at Hospital for

Special Surgery. She is a professor of medicine at Weill Cornell. Dr. Crow will continue as co-director of the Mary Kirkland Center for Lupus Research and director of the Autoimmunity and Inflammation Research program at HSS. She also serves as president of the Henry Kunkel Society. In addition to her studies of lupus, she investigates the immunologic mechanisms involved in rheumatoid arthritis and scleroderma.

Thomas O'Dowd, MD '79: "We couldn't wait until our official reunion this year—four of our Class of 1979 decided to get together for our own mini-reunion late last year. We've all committed to attending the big reunion this fall, and we look forward to seeing our classmates and to seeing how much better we look compared to our 'old' classmates."

1980s

Brad Radwaner, MD '80: "I'm the father of four boys: David, 20, Daniel, 18, Jonathan, 15, and Jake, 1-1/2. After 15 years as an invasive cardiologist, I'm now medical director of the New York Center for the Prevention of Heart Disease in Manhattan. I'm expecting publication of my first book on the epidemic of obesity and cardiovascular disease. I remember most the December 1976 Christmas Show, including the famous rendition of the 'First semester blues, nothing to lose except your mind.'"

Robert C. Marchand, MD '83, wrote with news of his four children. "Eddie, 25: real world, medical sales. Bo, 23: real world, Rhode Island State Police. Kevin, 18: fun world, Cornell undergrad football. Isabel, 5: kindergartner and living large."

Peter C. Adamson, MD '84, director of clinical and translational research and chief of the Division of Clinical Pharma-

cology and Therapeutics at the Children's Hospital of Philadelphia Research Institute, has been named chair of the Children's Oncology Group. He will remain on the staffs of the Children's Hospital and the University of Pennsylvania School of Medicine, where he is a professor of pediatrics and pharmacology.

1990s

Christine L. Frissora '86, MD '90, opened the Roberts Center for Irritable Bowel Syndrome and Related Disorders. Dr. Frissora, director of the IBS Center, will lead a team focused on the care and treatment of patients with IBS.

Gregory W. Lampe, MD '94: "I've been enjoying the practice of emergency medicine in Orange County, California, for the past 11 years. Just board certified again in my specialty. Actively involved in setting up my hospital and health system's information technologies. Still shocked at how far behind the medical field is in information technology."

Sheila K. Partridge, MD '97, is a surgeon practicing at Newton-Wellesley Hospital in Newton, Massachusetts, and medical director for the NWH Center for General and Weight Loss Surgery. She has been married for ten years and has two children, ages 6 and 4.

2000s

Jason E. Portnof, MD '06, and his wife, Courtney, announce the birth of their son, Justin Miller Portnof, on January 21, 2010. The family resides in New York City, where Jason has joined the faculty of the oral and maxillofacial surgery residency program at Beth Israel Medical Center/Jacobi Medical Center/Albert Einstein College of Medicine.

In Memoriam

'35 MD—Elizabeth Chittenden Lowry (Mrs. Thomas Lowry, MD '35) of Madison, CT, December 21, 2009; retired pediatrician; active in community and professional affairs.

'35 BA, MD '38—John D. Hunter of Manhasset, NY, January 11, 2008; family physician; staff physician at Manhasset Medical Center, North Shore Hospital, St. Francis Hospital, and Nassau Hospital; medical examiner, Federal Aviation Administration; active in community, professional, and religious affairs.

'42 MD—Richard B. Donaldson of Chattanooga, TN, December 27, 2009; orthopaedic surgeon; founder, Chattanooga Orthopaedic Clinic; staff surgeon, Erlanger Children's Hospital, Memorial Parkridge, Erlanger-North, East Ridge, and North Park Hospitals; medical director, Rehabilitation and Pain Management, East Ridge Hospital; courtesy staff, South Pittsburgh Hospital and Emerald-Hodgson Hospital (University of the South); conducted a crippled children's clinic and amputee clinic at the Siskin Foundation; veteran; active in community, professional, and religious affairs.

'38 BA, MD '42—John S. Hooley of Naples, FL, January 10, 2010; general surgeon; veteran; active in civic, community, and professional affairs.

'40 BA, MD '43—Morrison Rutherford of Medford, OR, formerly of Oxnard, CA, February 4, 2009; ob/gyn; veteran.

'41 BA, MD '43—Kathleen Spellman McLaurin of Raleigh, NC, formerly of Cincinnati, OH, October 30, 2009; briefly practiced medicine in New York City and Hollywood; personal doctor of Louis B. Mayer; active in civic and community affairs.

'45 MD—Charles A. Bailey of Colorado, CA, formerly of Ridgewood, NJ, December 25, 2009; cardiologist; internist; researched the Rh factor and typhus while in the Navy; president of the medical staff, Valley Hospital; veteran.

'45 MD—Howard M. Edwards Jr. of Rockford, IL, January 12, 2010; general

We want to hear from you!

Keep in touch with
your classmates.

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or by mail:
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practitioner; president of medical staff, KSB Hospital; staff physician, Sterling Community, Rockford Memorial, Amboy, and Dixon State Hospitals; invented an X-ray spacer and a limiter for a portable X-ray machine; president, Edwards Building Corp. and Serend Inc.; veteran; pilot; author; active in community and professional affairs.

'46 MD—Ellsworth C. Alvord Jr. of Seattle, WA, January 19, 2010; neuropathologist; professor and head of the Department of Neuropathology, University of Washington School of Medicine; worked on mathematical models for brain cancer; also worked at Baylor University; veteran; philanthropist; active in civic, community, professional, and alumni affairs.

'48 MD—Hector M. Brown of Alexandria, MN, formerly of Bemidji, MN, January 18, 2010; physician; coroner; veteran; active in civic, community, and religious affairs.

'50 MD—Bernard Amster of West Hollywood, CA, December 4, 2009; family practitioner; veteran.

'54 MD—Edwin M. Jacobs of San Francisco, CA, October 17, 2009; pioneering oncologist; head of clinical research, UCSF Cancer Institute; clinical professor of medicine, UCSF; also worked for Nat'l Institutes of Health; veteran; member, Pierre Monteux Society; active in community and professional affairs.

'58 MD—Ralph J. Lewis of Basking Ridge, NJ, February 15, 2010; chief of thoracic surgery, Robert Wood Johnson University Hospital, St. Peter's University Hospital, and Somerset Medical Center; clinical professor of thoracic surgery, Robert Wood Johnson Medical School; pioneer in video-assisted thoracic surgery; author; active in professional and alumni affairs.

'58 MD—Thomas J. O'Grady of Sylva, OH, February 28, 2010; thoracic and cardiovascular surgeon at the Toledo Clinic; chief of staff, St. Charles Hospital; on the staff of Flower Hospital, the Toledo Hospital, St. Charles Hospital, Mercy Hospital, and the Medical College of Ohio; former president, Academy of Medicine of Toledo and Lucas County; board member, Flower Hospital; chairman, medical advisory board, American Red Cross, Western Lake Erie region; captain, Air Force Medical Corps.

'64 MD—Arthur H. Hayes of Oxford, CT, February 11, 2010; former FDA Commissioner under President Reagan;

directed the FDA's response to the Tylenol tampering case; former associate dean for academic programs and assistant professor of medicine, Weill Cornell Medical College; professor and director of clinical pharmacology, Pennsylvania State University Medical School; co-founded medical clinic on the Pacific island of Pohnpei for Jesuit Missions; provost and dean, New York Medical College; president, E. M. Pharmaceuticals; founder, MediScience Associates; veteran; author; active in professional, religious, and alumni affairs.

'64 MD—Thomas R. Vaughan Jr. of San Francisco, CA, November 30, 2009; chief of staff, St. Francis Memorial Hospital; pulmonologist and critical-care specialist, Kaiser Permanente Medical Center; fellow, UCSF Cardiovascular Research Institute; staff physician, San Francisco Veterans Hospital; active in professional affairs.

'65 MD—Nicholas Fortuin of Owings Mills, MD, April 11, 2010; cardiologist and professor of medicine, Johns Hopkins Medical Institute; first director, echocardiograph laboratory, Johns Hopkins; worked for the U.S. Public Health Service at the University of North Carolina School of Medicine; researched the effects of air pollution on the heart; active in professional and religious affairs.

'70 MD—Clark N. Hopson of Hilton Head Island, SC, September 6, 2009; chairman, Department of Orthopaedics, University of Cincinnati; established a private

practice, Orthopaedic Reconstruction, in Hilton Head Island.

'70 MD—Joseph S. Tulumello of Buffalo, NY, November 6, 2009; practiced pulmonary and internal medicine.

'96 BA, MD '00—Keisha M. DePass of Baltimore, MD, January 19, 2010; pediatrician and orthopaedist, Maryland Pediatric Orthopaedic Center; active in professional affairs.

Faculty

James F. Masterson of Rye, NY, April 12, 2010; clinical professor emeritus of psychiatry at Weill Cornell Medical College; expert on narcissism and other personality disorders; founder and director, Masterson Institute for Psychoanalytic Psychotherapy; proponent of object relations theory; former head of the Payne Whitney Psychiatric Clinic's adolescent program; author of several books, including *The Search for the Real Self* and *The Psychiatric Dilemma of Adolescence*; veteran; active in professional affairs.

Elisabeth P. Pickett of Aurora, CO, February 14, 2010; former instructor in urological surgery at Weill Cornell; first board-certified female urologist in the U.S.; research fellow, Sloan-Kettering Institute and adjunct attending at Memorial Sloan-Kettering Cancer Center; director, Spinal Cord Injury Center, Castle Point Veterans Hospital; trained Afghan physicians in the 1970s; mountain climber; active in professional affairs.

Mary Ann Payne, MD '45, PhD

The Weill Cornell Medical College Alumni Association Board of Directors humbly recognizes the life and remarkable contributions of Mary Ann Payne, who passed away on March 24, 2010, at the age of 96. Dr. Payne had a long and distinguished career in medicine. She received her MD from Cornell University Medical College and her MA and PhD (endocrinology) from the University of Wisconsin. She was a clinical professor of medicine at the Medical College and an attending physician at the New York Hospital. Dr. Payne served in several leadership positions at the Medical College, including president of the Alumni Association and member of the Board of Overseers. She also was a member of the Dean's Circle, recognizing outstanding alumni generosity, president of the Voluntary Staff of NewYork-Presbyterian Hospital, and the first woman president of the New York Academy of Medicine. In 1994, the Alumni Association honored her with the Alumni Award of Distinction; other awards include the Special Recognition Award from the American Society of Internal Medicine, the Award of Merit from the New York State Society of Internal Medicine, and the Distinguished Service Plaque from the New York Academy of Medicine.



Hair Raising

To help Haiti, a student puts his locks on the chopping block



First-year medical student Matt Goodwin was in the anatomy lab, dissecting his cadaver and talking about the horrific earthquake that had struck Haiti, when a classmate had the brainstorm that would cost him his Sampsonesque locks. In the six months preceding his first semester, Goodwin had worked at the Weill Cornell-affiliated GHESKIO clinic in Port-au-Prince, studying retention rates of HIV vaccination trials and the incidence of HPV infection in HIV-positive women. Now he felt utterly helpless, to the point where he was considering taking the semester off so he could contribute his Creole language skills to the recovery effort. “I remember reading in the *Wall Street Journal* about the street that I lived on—they were reporting that one of the markets collapsed, and it was the market we went to every day,” Goodwin recalls. “It was devastating and surreal.”

He and his classmates cast about for ways to help the Department of Global Health raise funds for GHESKIO, which had been inundated with patients and refugees. It was Crystal Castañeda '13 who uttered the fateful words: “You should raise money by cutting off your hair.”

“I said something like, ‘I don’t think people would pay for that,’” Goodwin recalls with a laugh. “And another girl said, ‘Oh... you’d be surprised.’”

Goodwin’s massive reddish-brown mane had not gone unremarked by his fellow members of the Class of 2013. It was, as he describes it, “crazy and curly,” falling to chest length—a work in progress since summer 2007, when he was applying to med school. “Of course, after I applied I stopped cutting it,” says Goodwin, a South Carolina native who holds a PhD in physiology from Alabama’s Auburn University. “Then I deferred for a year and it got longer, and I showed up looking like a complete hippie.”

Fully prepared to sacrifice his crowning glory for the greater good, he led his fellow first-years in a fundraising campaign, with a



JOHN ABBOTT

kindest cut: At the annual class show, Matt Goodwin '13 sacrifices his mane to raise funds for Haiti, with a classmate wielding the scissors. Inset: Post-coiffure, Goodwin sports a military look.

goal of \$2,013 from the class and more from outside sources. The payoff: he would have his hair cut at the annual class show on March 1. In the end, donations outstripped expectations; they garnered \$2,427 from the class—ninety-six people gave, out of 103—and \$6,100 total, including gifts from other students, relatives, and the engineering firm where his father works. Individual donations ranged from \$1 to \$500. “I was tickled to death by how much the class gave and how much they stepped up,” says Goodwin, who hopes subsequent first-years will be inspired to include a fundraiser as part of the annual class show. “It was powerful to see a bunch of young, motivated people doing something like this.”

And what of his newly shorn locks? Measuring more than twenty inches, they’ll be donated to Wigs for Kids. “I wanted to get the most to donate, so we buzzed my head,” he says, a bit ruefully. “Which, I want to point out, was *not* the original deal. It was supposed to be a *haircut*.” Still, for a twenty-eight-year-old who’s worn long hair most of his life, the close-cropped style has felt surprisingly good, except for chilly ears in a New York winter. “It’s fantastic,” he says. “It’s so much easier. And I use a lot less shampoo.”

— Beth Saulnier

Student Scholarships

'Planned gifts are the answer.'

'By supporting the education of physicians, you're helping to ensure that people will get quality care when they need it. And that's one of the most important things to me.'

Jack Richard, MD '53



The notion of "giving ahead" is intrinsic to the life of Jack Richard, MD '53. As a member of the Weill Cornell Medical College faculty for more than fifty years, he is a sensitive and caring physician who views his medical education and his physician practice as the best way for him to help improve the lives of others.

"My father always told me that his concept of immortality was doing things while you're alive that will continue to benefit others after you're gone," Dr. Richard says.

As an alumnus, he continues to give in the most effective ways he can to help current medical students. He made planned gifts to the Medical College through pooled income funds and charitable gift annuities, and established the Jack Richard Clinical Fellowship in Endocrinology, among other gifts.

As Alumni Chairman of the Lewis Atterbury Stimson Society—which honors those who include the College in their planned giving—he encourages retired Weill Cornell alumni and alumnae to include planned giving for student scholarships in their charitable contributions to the College.

"For retired physicians who want to contribute to Weill Cornell scholarship funds but are concerned about retaining assets in their retirement, planned gifts are the answer—you can give now to help those in medical school, yet continue to receive income from those funds during your life," Dr. Richard says.

For information on planned giving options at Weill Cornell, please contact

Robert Wollenburg, Director of Planned Giving, Phone: 646-962-3415, Email: row2012@med.cornell.edu

Please visit our Website at www.weill.cornell.edu/campaign



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All Alumni: Be sure to return your submission forms to the Office of Alumni Relations to have your works of art featured in the Alumni Arts Journal.

Reunion Classes: Be sure to return your questionnaire and send a photograph to the Office of Alumni Relations to be included in your Reunion Class Booklet.

Make a gift to your Class Scholarship Fund by July 30 to have your name included in the Reunion 2010 program.

2010

Anniversary Classes

5 th	10 th	15 th	20 th
2004	1999	1994	1989
2005	2000	1995	1990
25 th	30 th	35 th	40 th
1984	1979	1974	1969
1985	1980	1975	1970
45 th	50 th	55 th	
1964	1959	1954	
1965	1960	1955	
60 th	65 th		
1949	1944		
1950	1945		



Weill Cornell Medical College



Downloadable forms and more information on Reunion 2010 available at:
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