



weillcornellmedicine

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

SPRING 2011

Managing Change

How will the new
health-care law affect
medical practice?

Weill Cornell launches the *Research Leads to Cures* Initiative.

RESEARCHERS AT WEILL CORNELL...

... are leaders in medical breakthroughs that will transform the quality of medical care and assure longer, healthier lives for us, our children, grandchildren, and future generations.

Their brain power, meticulous quest for answers, and relentless passion – all are the heart of the *Research Leads to Cures* Initiative. Learn more about Weill Cornell's most recent research that is leading to cures.

Find out how you, too, can help fulfill the exciting promise of better health thanks to the many medical discoveries that are underway.

The screenshot shows the Weill Cornell Medical College website. At the top is the college's logo and name. Below is a navigation bar with links: HOME, SCIENTIFIC ACCOMPLISHMENTS, CAMPAIGN FAQ, LEARN MORE, GIVING OPPORTUNITIES, and PRIORITY AREAS. The main content area features a large video player titled "The Inside Story About Our Research Discoveries" with a play button and a "Running Time: 5:42 minutes" label. To the right of the video is a red box with the text "DISCOVERIES THAT MAKE A DIFFERENCE" and "RESEARCH LEADS TO CURES". Below this is a section titled "Researchers at Weill Cornell..." followed by a paragraph about medical breakthroughs. To the right of this paragraph is a box titled "RESEARCH LEADS TO CURES" with contact information for Luckie Ferraro. At the bottom of the screenshot is a section titled "EIGHT SCIENTISTS" with a row of eight portraits and a caption about sharing their stories.

Go to our new website
weill.cornell.edu/campaign/research

See a compelling five-minute video on why Weill Cornell is a research powerhouse.

Hear the inside stories from eight of our scientists and doctors about how their discoveries are already benefitting patients.

Learn more at weill.cornell.edu/campaign/research



Weill Cornell Medical College

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



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FEATURES

20 NORTHERN EXPOSURE

BETH SAULNIER

An inherent limitation of an urban tertiary care facility like NYP/Weill Cornell is that it can give its students and residents only one kind of experience—that of life in a large academic medical center. But thanks to a growing collaboration with Ithaca's Cayuga Medical Center, trainees are getting a taste of how medicine is practiced in a smaller, more rural community. It's a relationship that benefits all involved—not just the students but their mentors as well. "The physicians get to interact with medical students and residents who, like bright young people everywhere, are asking questions," says Cornell president David Skorton, MD. "They're learning things for the first time—and like all teachers, the physicians are seeing the world anew through their eyes."

36 A DIFFICULT AGE

SHARON TREGASKIS

When illness and physical disability strike—as they inevitably do as we age—the risk of clinical depression nearly triples. On top of such medical issues come a host of age-related psychosocial factors like the deaths of friends and loved ones, changing roles in society, and cognitive decline. Those realities, and the demographic fact that the vanguard of the Baby Boom is reaching its elder years, are driving a growing epidemic of geriatric depression—which in turn can exacerbate conditions such as heart disease, diabetes, and COPD. A look at the problem, and how Weill Cornell researchers are working to combat it.

32 STANDARDS OF CARE

ANDREA CRAWFORD

When Congress passed the Patient Protection and Affordable Care Act in March 2010, much of the public's attention focused on the bill's provisions to reform insurance. But a large part of the legislation concerned delivery system reform—the effort to improve the way medical practitioners and hospitals provide care. Weill Cornell experts weigh in on three aspects of the legislation—accountable care organizations, comparative effectiveness research, and health information technology—that could offer the biggest gains. "They're critically important for health-care reform," says Alvin Mushlin, MD, chair of the Department of Public Health, "and they're key determinants of whether it is going to be successful."



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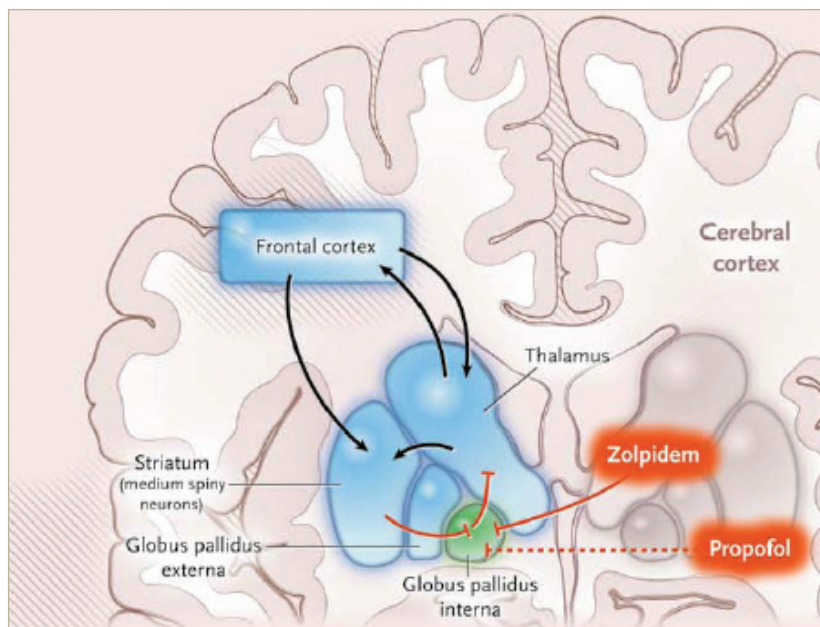
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Cover illustration by
Jim Frazier

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Light Box



NYPH/WCMC

Rhapsody in blue: In April, several Weill Cornell buildings were lit in blue to mark National Autism Awareness Month. They included the Rogers building on the Westchester campus, future home of the Institute for Brain Development.

What's Behind **A CURE**

Capital Campaign Update

Thanks to research breakthroughs, once-fatal or debilitating diseases are becoming **manageable, treatable—and sometimes curable**—at a rate faster than ever before. How do discoveries move from the laboratory to the patient?

Two prominent Weill Cornell faculty members—one a researcher, one a physician—describe their work, their goals, and the ever **closer link between the research lab and the doctor's office**.

INSIDE THE RESEARCH LAB

Ari Melnick, MD | Focus: Molecular Therapeutics and Personalized Medicine

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

TUMORS: WHY NO TWO ARE ALIKE

"A basic concept of human biology is that we are all different from one another. You can tell that just by how different each of us looks—the shape of our face, our height, hair color, eyes. Well, it's even more different inside our cells. That's why tumors in each individual behave differently.

"So to be able to figure out how to treat cancers, we first have to understand in great detail how the small molecular 'machines' inside of our cells work, how their millions of gears fit together. We know that these gears might be slightly different in each person—which is why it's so important to develop personalized treatments.

"Our lab's goal is to see and understand these molecules at the nuts-and-bolts level, and to consider especially how they rule cancer cells and make them behave in such a dangerous fashion."

'DESIGNER' MOLECULES THAT GO AFTER CANCER

"The increasing technological power to re-design molecules and turn them into treatments is accelerating greatly.

"For example, recent research identified mutations that alter important regulatory factors and occur frequently in non-Hodgkin's lymphoma and acute leukemia cells. Almost immediately following these discoveries—within one or two years—our group and other collaborating scientists



designed drugs to block these abnormal functions. Some of these drugs are expected to be in clinical trials by next year. This means that the discovery of cancer biology mechanisms can now be translated to benefit patients in only a few years, rather than decades.

"And the wonderful part is that these small-molecule drugs shut down the cancer cell but are fairly innocuous to normal cells. As a result, we can treat the cancer and achieve very powerful anti-tumor effects with almost no damage to normal tissues."



AT WEILL CORNELL: INGREDIENTS FOR MEDICAL DISCOVERY

"I came to Weill Cornell because it is an outstanding place to perform this research.

"There is an unprecedented level of collaboration between clinicians, researchers, pathologists, and experts in mathematics, computational modeling, nano-technology. That's essential, because the number of data points we capture per patient in order to guide diagnostic and therapeutic decisions is in the millions, or billions.



"We also enjoy a very synergistic relationship with colleagues in other New York research institutions as well as institutions around the world. The fastest acceleration of bench-to-bedside discoveries will come from the kind of research environment we have here."

INSIDE THE DOCTOR'S OFFICE

Gail Roboz, MD | Focus: Leukemia

Associate Professor of Medicine
Department of Medicine

FROM DEADLY TO CURABLE

"There are two subtypes of leukemia—Chronic Myeloid Leukemia (CML) and Acute Promyelocytic Leukemia (APL)—that have now gone from deadly to curable. And those transitions have been because of incredible interactions between basic scientists and clinicians.

"This is now possible because the molecular age is here. Molecular diagnostics in leukemia and in myelodysplastic syndrome (MDS—formerly known as 'preleukemia') have taken off, thanks to the work in labs such as Ari Melnick's—where they are making significant discoveries in this area. In bone marrow disorders such as leukemia, there are things we can do now to help a person that were not even possible two or three years ago.

"One problem with leukemias is that the molecular abnormalities are more heterogeneous—there's a lot going on. In order to crack the rest of these codes, there needs to be constant interaction between the scientists and the clinicians, which has been established incredibly effectively at Weill Cornell."

PUTTING PATIENTS FIRST

"Recently, a patient in her late 80s came to see me. She had symptoms of leukemia—was very anemic, was requiring significant blood transfusions, and she came to me for an additional opinion. Because of her age, nobody would do a bone marrow biopsy on her to help with diagnosis—which is really such a straightforward thing to do. We did the bone marrow biopsy, and we found out that she has what is called a 5Q problem.



"This is a specific chromosome that is abnormal, which recently has been shown to respond fantastically well to a pill. We quite easily fixed her hemoglobin—she went from lying on the couch and not having any energy to do anything, to being active, enjoying life again, and feeling great with no transfusions. Just by doing a diagnostic test.

"Not getting a diagnosis because a person is older is absurd. It makes no sense. Because now, for some leukemia patients, there really are things we ought to do that make a big difference."

PATIENTS INVOLVED IN THEIR OWN CARE

"Patients now jump onto the Internet and they come to my office with a list of the diagnostic tests they want and they ask me: 'Are you going to sequence my genome?'

"They know that these genome sequencing tests—while still costing several thousand dollars—are coming down in price in the same way that technology breakthroughs like the iPhone came down in price pretty quickly. The tests are becoming much more readily available to the point where genome sequencing is not just for the scientists—it's already available for the patients.

"Scientist-clinician partnerships at Weill Cornell, combined with patient engagement, have put us on the cusp of new discoveries."



"Personalized medicine that felt like *Star Trek*
just a few years ago **is becoming a reality.**"

Learn more at
weill.cornell.edu/campaign/research

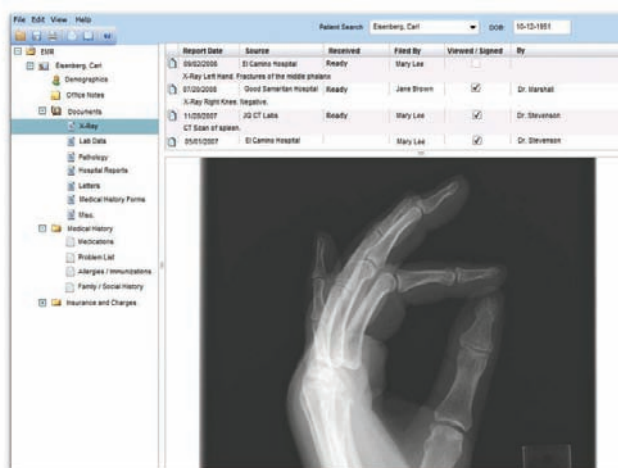
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Weill Cornell Medical College

Leading the Way in Electronic Health Records

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



Federal and state governments have been pushing for implementation of electronic health records (EHRs), which—with their potential to improve quality and safety, and reduce costs and errors—have become a centerpiece of efforts to reform health care. The U.S. government is investing up to \$30 billion in physician incentives for what policymakers call “meaningful use” of EHRs—uses that tie electronic records to improvements in the quality, safety, and efficiency of care. Indeed, many current approaches to reform, including patient-centered medical homes and accountable care organizations (see feature story, page 32), will be impossible without EHR systems in place.

Putting heavy emphasis on health information technology in recent years, NYP/Weill Cornell has rapidly become a leading institution in the research, educational, and operational activities of health-care informatics and policy. In 2007, WCMC created the Division of Quality and Medical Informatics, jointly housed in the Department of Pediatrics and the Department of Public Health. Under the leadership of Rainu Kaushal, MD, MPH, founding chief, and with a team of seven full-time faculty members and a half-dozen affiliated faculty, the Division has been at the forefront of health services research on how health information technology affects health care, receiv-

ing much federal, state, and foundational support.

The Division’s researchers evaluate various health IT initiatives, including EHRs, electronic prescribing, and personal health records, as well as health-care delivery models such as the patient-centered medical home. (A study it recently released, for example, showed that in an ambulatory setting, the use of ambulatory electronic prescribing was able to reduce prescribing medication errors up to seven-fold.) The Division is also heading efforts to evaluate New York State’s \$840 million initiative in health information technology, including a statewide health information exchange. The Division is the lead entity in a unique academic consortium called the Health Information Evaluation Collaborative, which also includes Columbia University, SUNY Albany, and the University of Rochester. In order to further enhance our leadership position in health-care informatics, the Medical College has also recently established a new Center for Healthcare Informatics and Policy (CHIP) to be directed by Dr. Kaushal.

At NYP/Weill Cornell, we have federally certified, vendor-based EHR systems in both ambulatory and inpatient settings. Our systems have undergone significant refinements to optimize performance and tailor them to our needs. They are linked to patient portals or personal health records—allowing patients to access their laboratory values or radiology results, schedule appointments, and conduct secure online communication with their physicians.

From the beginning of their education, Weill Cornell medical students learn to integrate health IT fully into their future practices. We also train our residents and attending physicians on the best ways for EHRs to enhance clinical practice, from billing and compliance issues to creating patient discharge information.

This is an exciting time in modern medicine. EHRs form the foundation of health-care informatics, a field that offers rich potential for numerous multi-disciplinary scientific collaborations and for influencing important policy trends. It also offers physicians new ways to help us in our core mission: improving the health of the patients entrusted to our care.

Research: The Engine That Propels Us Toward the Cure

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

Scientific research is the driving force of medical advancement. It has fueled the remarkable progress we have made over the last twenty-five years in fighting disease and prolonging life. Today, we at the Graduate School of Medical Sciences, and the scientific community at large, are on the cusp of making profound strides in understanding and treating many of the major diseases affecting Americans. With technology advancing at breakneck speed, we expect to make enormous improvements over the next two decades in how we treat cancer, Alzheimer's disease, and cardiovascular disease. We expect to see the eradication of numerous infectious diseases affecting people around the world.

When researchers understand the earliest stages of disease, they gain insights into how to fight it. That's the essence of bench-to-bedside research—the laboratory breakthroughs that translate into clinical treatments that save lives. It is this promise that drives the 500 full-time faculty members currently doing investigative research at Weill Cornell. In their quest to expand human knowledge and fight disease, they cooperate to share new techniques and approaches, generate ideas for animal models or reagents, design novel experiments, and more. This spirit of collaboration is one of our strengths.

This spring, the Medical College launched the *Research Leads to Cures* initiative. In the next phase of the \$1.3 billion *Discoveries that Make a Difference* campaign, its aims are to raise \$225 million to support priority research programs and recruit thirty new scientists. It is focused on eight areas: the brain; cancer research; heart health; children's health; diabetes, metabolic disorders and obesity; global health and infectious diseases; stem cell, developmental biology, and reproductive and regenerative medicine; and scholarships to attract the next generation of physician-scientists.

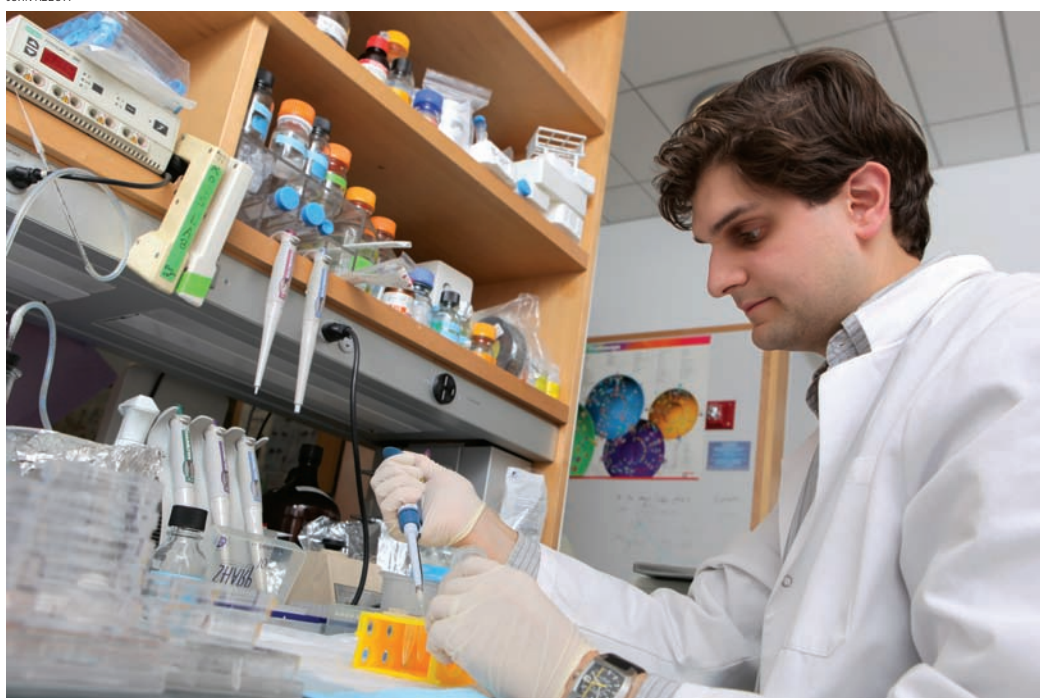
Our scientists form a powerful nucleus of talented people working to tackle the challenges facing us today, such as how to produce new drugs that not only extend life expectancies but offer higher quality of life. They are working together to implement advances in personalized medicine, build upon epigenomic techniques,

and more. In the next decade they will be instrumental in improving how we treat symptoms and enhancing early detection methods. Meanwhile, they fulfill another key role in mentoring our graduate students and postdoctoral fellows, in helping to shape those who will build upon our knowledge and combat many diseases that today may seem intractable.

Thanks to the 480,000-square-foot medical research facility now under construction, collaboration among scientists in New York City and in Ithaca will grow as well. We will soon have the space to foster greater connections between the two campuses in areas such as biomedical engineering, nanoscience and nanomedicine, and the life sciences—drawing on the strengths of both campuses to put basic science to work at a clinical level. This is the great promise of medical science research, and of how we conduct it at Weill Cornell. In this way, the faculty in the Graduate School will continue to make progress toward our goal of training the next generation of basic and clinical scientists.

Bench to bedside: In the lab of neurology and neuroscience professor M. Elizabeth Ross, MD '79, PhD '82, PhD candidate Jason Gray uses mouse models to study the genes that cause birth defects—and how environmental factors, like levels of folic acid, can affect them.

JOHN ABBOTT



Nathan Elected to National Academy of Sciences

Microbiology and immunology chair Carl Nathan, MD, is among the seventy-two new members elected to the National Academy of Sciences this spring. Membership is one of the highest honors available to an American scientist; of the approximately 2,000 living Academy members, more than 180 have won Nobel Prizes. Established in 1863, it serves to “investigate, examine, experiment, and report upon any subject of science or art” whenever called upon by the government. Nathan, the R. A. Rees Pritchett Professor of Microbiology and director of the Abby and Howard P. Milstein Program in Chemical Biology and Infectious Diseases, has served on the Weill Cornell faculty since 1985. He was inducted into the Academy at its annual meeting in April.

Nathan studies host-pathogen reactions with an interdisciplinary team that seeks to bring immunology, microbiology, biochemistry, structural biology, and chemical biology to bear on tuberculosis. “Each one of Dr. Nathan’s many unique research contributions has significantly deepened our understanding of the immune system and its interaction with pathogens,” says David Hajjar, PhD, dean of the Graduate School and the Frank H. T. Rhodes Distinguished Professor of Cardiovascular Biology and Genetics. “In particular, his investigations into the mechanisms of tuberculosis have the potential to overcome the problem of antibiotic drug resistance and transform the way the disease is treated.”

Tuberculosis is a major cause of death around the world, with as many as one-third of the world’s population infected with the bacterium; about 9.4 million develop the disease each year and 1.7 million succumb, mainly in developing countries. Says Dean Antonio Gotto, MD: “Dr. Nathan’s pioneering work in immunology, microbiology, infectious disease, and global health has long been a source of pride for Weill Cornell.”

Lachs Gives Senate Testimony on Elder Abuse

In March, Mark Lachs, MD, co-chief of the Division of Geriatrics and Gerontology, testified on an expert panel on elder abuse convened by the U.S. Senate Special Committee on Aging. The hearing, “Justice for All: Ending Elder Abuse, Neglect, and Financial Exploitation,” included testimony from actor Mickey Rooney, who described suffering emotional abuse and financial exploitation at the hands of a family member.

In his testimony, Lachs presented the results of a recent study



AMELIA PANICO

Carl Nathan, MD

that interviewed more than 4,000 elders in the metro area about their personal experiences with abuse. It found that 7.2 percent had suffered some form of mistreatment in the past year; the most common form was financial exploitation (about 4 percent) followed by physical abuse (about 2 percent). “If that’s not worrisome enough,” Lachs, the Irene F. and I. Roy Psaty Distinguished Professor of Medicine, said in an essay in the Huffington Post, “I think the most compelling finding from the study is the fact that for every case we identify, we miss about twenty-three.”

Fins Honored with New Davis Professorship

Joseph Fins, MD ’86, chief of the Division of Medical Ethics, has been named the first E. William Davis Jr., MD, Professor of Medical Ethics. An internationally renowned medical ethicist and pioneer in the field of neuroethics and disorders of consciousness, Fins has won numerous awards and more than twenty competitive grants. He was a member of the White House Commission on Complementary and Alternative Medicine Policy under President Bill Clinton and currently serves on the New York State Task Force on Life and the Law. Last year he was elected to the Institute of Medicine of the National Academies, one of the highest honors in medicine.

The new professorship was created in honor of E. William Davis Jr., MD ’51, who was instrumental in creating NYP/Weill Cornell’s ethics committee in 1994, when Fins was named its founding chair. Formerly a professor of clinical obstetrics and gynecology at the Medical College, Davis is vice president for medical affairs emeritus at NewYork-Presbyterian Hospital. Says Fins: “It is truly a singular honor having a professorship named in honor of Dr. Davis, a person who is especially beloved at the medical center for his dignified manner and discernment.”

Former Health Commissioner Daines Dies

Former New York State health commissioner Richard Daines, MD '78, passed away suddenly at his home in Stanfordville, New York, on February 26. He was sixty. Previously the chief executive of St. Luke's-Roosevelt Hospital Center in Manhattan, Daines was appointed health commissioner by Governor Eliot Spitzer in 2007. During his tenure, he advocated for a tax on soft drinks and other sugary beverages—ultimately, after contentious debate, it was not enacted—and helped develop public policy on the swine flu epidemic. He created an office of health information technology within the Health Department and, in a move that sparked controversy, tried to reduce Medicaid costs by consolidating and closing nursing homes and hospitals.

Daines stepped down from the statewide post in January and was about to become a visiting scholar at the New York Academy of Medicine. "Richard Daines was an outstanding physician, a proud Cornell alumnus, a loving husband and parent—including father of two Cornellians—and a dedicated public servant who cared deeply about public health and the future of health care within our state," said Cornell president David Skorton, MD. "With his passing, New York State has lost a great leader, and we at Cornell have lost a dear friend."



Richard Daines, MD '78

Madoff Named Chief of Interventional Radiology

An expert in the emerging field of interventional oncology has been named chief of interventional radiology at NYP/Weill Cornell and a professor of radiology at the Medical College. David Madoff, MD, who comes to Weill Cornell from M. D. Anderson Cancer Center in Houston, is a leading academic practitioner of interventional radiology, which uses minimally invasive, image-guided techniques to diagnose and treat a wide range of disorders.

Madoff's area of expertise is interventional oncology, including catheter-based and ablative treatments for solid organ malignancies, particularly primary and metastatic liver cancer therapy. He has participated in numerous clinical trials for liver cancer treatment, which include novel strategies for drug and radiation delivery. He is an authority in preoperative portal vein embolization, a technique used to improve the safety of major liver surgery by stimulating the growth of healthy tissue. Madoff is the editor of a textbook on the topic, *Venous Embolization of the Liver: Radiological and Surgical Practice*, which will be published later this year.

NYP Ranked Tops in Metro Area

NewYork-Presbyterian Hospital has been ranked number one in the metro area by *U.S. News and World Report*. Released in March, the magazine's rankings of sixty-six hospitals across the U.S. considered such factors as reputation and mortality rates. NYP was among the top ten hospitals nationwide—and the only one to be highly rated in all sixteen clinical specialties. According to NYP president and CEO Herbert Pardes, MD, the honor "reflects our continued commitment to provide our patients with the most effective and compassionate care—from everyday illnesses to some of the most complex and life-threatening conditions."

Lyden Co-edits First Textbook on Metastasis

In April, Cambridge University Press published *Cancer Metastasis: Biologic Basis and Therapeutics*, the first textbook on the subject. It was co-edited by David Lyden, MD, PhD, the Stavros S. Niarchos Associate Professor in Pediatric Cardiology and a professor of cell and developmental biology. "This groundbreaking new text comprehensively covers the process underlying cancer metastasis and the clinical treatment of metastatic disease," Lyden says. "The internationally renowned authors of this book have summarized the state-of-the-art research in the metastasis field."

TIP OF THE CAP TO...

WCMC-Q students **Abdulhadi Al Saei '13**, **Arnab Chowdhury '13**, and **Sanah Sadiq '13**, winners of the Qatar National Research Fund's Undergraduate Research Experience Programme competition for their project on public perception of Down syndrome in Qatar.

Physiology and biophysics professor **Olaf Andersen, MD**, winner of the Distinguished Service Award from the Biophysical Society.

James Bernat, MD '73, a professor of neurology and medicine at Dartmouth, winner of the President's Award from the American Academy of Neurology.

N. Reed Dunnick, MD '69, radiology chair at the University of Michigan, given honorary membership in the American Society of Radiation Oncology.

Anne Gershon, MD '64, director of Columbia's Division of Pediatric Infectious Diseases, winner of Weill Cornell's Distinguished Alumni Award.

Radiology and medicine professor **Stanley Goldsmith, MD**, elected to the board of directors of the Lymphatic Research Foundation.

Roderick King, MD '92, on the faculty in the Department of Global Health and Social Medicine at Harvard, named a Fulbright Nexus Scholar.

Professor of clinical medicine **Anne Moore, MD**, medical director of the Weill Cornell Breast Center, winner of the New York Academy of Medicine's Academy Plaque for Exceptional Service.

Pablo Rodríguez del Pozo, MD, PhD, JD, associate professor of public health at WCMC-Q, given the Humanism in Medicine Award by this year's graduating class at the Qatar campus.

The **Sackler Institutes** at Weill Cornell and Columbia University, which have awarded the Mortimer D. Sackler Prize for Distinguished Achievement in Developmental Psychobiology to Fernando Nottebohm, PhD, head of the Laboratory of Animal Behavior at Rockefeller University.

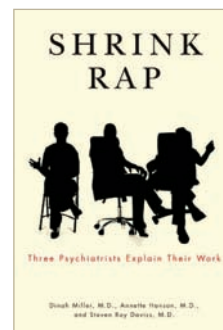
Vice chair of child and adolescent psychiatry **John Walkup, MD**, winner of the Blanche F. Ittleson Award for Research in Child Psychiatry from the American Psychiatric Association.

WCMC-Q Hosts Diabetes Conference

In March, more than 650 scientists, physicians, and other health-care professionals met in Doha, Qatar, for the XVII International DALM (Drugs Affecting Lipid Metabolism) Symposium on Diabetes, Obesity, and the Metabolic Syndrome. The event—which marked the first time the symposium was held outside the United States or Italy since its inception in 1960—was hosted by the Qatar Foundation, WCMC-Q, and the Giovanni Lorenzini Medical Foundation. The program featured keynote presentations by international experts as well as panel discussions on such topics as lifestyle and dietary modifications for at-risk patients; economic and public health challenges; and treatment of women, young people, and the elderly. “As Qatar’s only medical college,” says WCMC-Q dean Javaid Sheikh, MD, “we welcome the opportunity to help bring scientists and physicians together to focus on significant issues in patient care here and around the world.”

Alumna’s Book Explains How Psychiatrists Work

Dinah Miller, MD ’88, has co-authored a general-audience book aimed to help laypeople understand psychiatry. Published by Johns Hopkins University Press, *Shrink Rap* addresses such issues as how psychotherapy works and what happens on a psychiatric unit. It uses patient vignettes to describe how psychiatrists deal with challenges from the mundane (how much to charge) to the controversial (involuntary hospitalization). The book is based on a blog and podcast series by Miller, who has a private practice and serves as a consulting psychiatrist for the Johns Hopkins Hospital Community Psychiatry Program, and coauthors Annette Hanson, MD, and Steven Roy Daviss, MD.



FROM THE BENCH

New Guidelines for Evaluating Stroke Care

Neurology professor Dana Leifer, MD, has helped develop new guidelines for metrics to monitor and improve the quality of care at stroke centers. The guidelines, published in *Stroke: Journal of the American Heart Association*, include tracking the percentage of ischemic stroke patients identified as eligible for the clot-busting drug tPA and treated within sixty minutes of arrival; tracking the time from hospitalization to blood vessel repair for patients with ruptured aneurysms; and performing a ninety-day follow-up to assess outcomes in ischemic stroke patients.

Information ‘Towers’ for Earthquake Response

According to a study by researchers at Weill Cornell and the University of California, Davis, information technology could improve patient outcomes following an earthquake. Senior author Nathaniel Hupert, MD, associate professor of public health and co-director of the Cornell Institute for Disease and Disaster Preparedness, advocates the use of “control towers” as telemedicine hubs to manage communication between first responders and medical professionals. Computer simulations show that such towers increase the odds that critically injured victims would get timely care and survive; they also reduce patient waiting times and decrease overall hospitalizations. The work, published in the *Journal of Medical Systems* in March, employed applied engineering methods normally used to analyze queuing systems like telephone call centers and road traffic.

Zebrafish Aid Melanoma Work

The humble zebrafish is offering new hope for patients with melanoma, the aggressive skin cancer that is responsible for some 8,700 deaths each year in the U.S. In a study featured on the cover of the March 24 issue of *Nature*, Weill Cornell researchers screened more than 3,000 zebrafish and found a gene, SETDB1, that dramatically increases melanoma formation. The same gene appears to be overly expressed in humans, playing a role in up to 70 percent of malignant melanomas—and offering a potential target for future drugs. “People are surprised when I tell them I use zebrafish to do cancer research,” says assistant professor of medicine Yariv Houvras, MD, PhD. “It is still amazing to me that the same genes that cause cancer in humans also cause cancer in fish. The zebrafish is an amazing organism because we can do complex genetic studies, and the fish has many of the same organs and tissues that we have.”

Receptor Key to Alzheimer’s Damage Identified

In the *Proceedings of the National Academy of Sciences*, Weill Cornell researchers have described a single receptor that may be key to the vascular damage in the brain associated with Alzheimer’s disease. According to lead investigator Costantino Iadecola, MD, the findings could have “broad biological and clinical implications,” with the receptor, CD36, offering a potent drug target. In recent years, scientists have begun to understand how constricted blood flow plays a role in worsening dementia. “Now we know that when amyloid-beta particles—the presumed culprit in Alzheimer’s disease—build up in the blood and brain, CD36 sets

off a response that ends up damaging the vessels, which reduces blood flow,” Iadecola says. “This is like what happens in an ischemic stroke in that the brain does not receive sufficient nourishment, except that in Alzheimer’s disease brain vessels are not blocked. In Alzheimer’s disease there is sufficient blood flow to maintain a low level of brain activity, but not enough to provide the extra energy that the brain needs when it becomes more active.” The researchers found that when they disabled CD36 in experimental animals, the vessels supplied nutrition to Alzheimer’s-affected neurons and improved their function.

Gene Therapy Reduces Parkinson’s Symptoms

A Phase 2 clinical trial of gene therapy for Parkinson’s disease has shown promising results. In *Lancet Neurology*, Michael Kaplitt MD ’95, PhD, and colleagues reported that the therapy, NLX-P101, dramatically reduces movement impairment in Parkinson’s patients by normalizing chemical signaling. “This not only confirms the results of our Phase 1 trial performed at NewYork-Presbyterian/Weill Cornell,” says Kaplitt, vice chairman for research in the Department of Neurological Surgery, “but also represents a major milestone in the development of gene therapy for a wide range of neurological diseases.” The current study involved forty-five patients with moderate to advanced disease not adequately controlled with conventional therapies; half received the gene therapy, half a placebo. The researchers found that half of those who received the therapy showed dramatic improvements in symptoms, compared with just 14 percent of the control group.

Awakenings

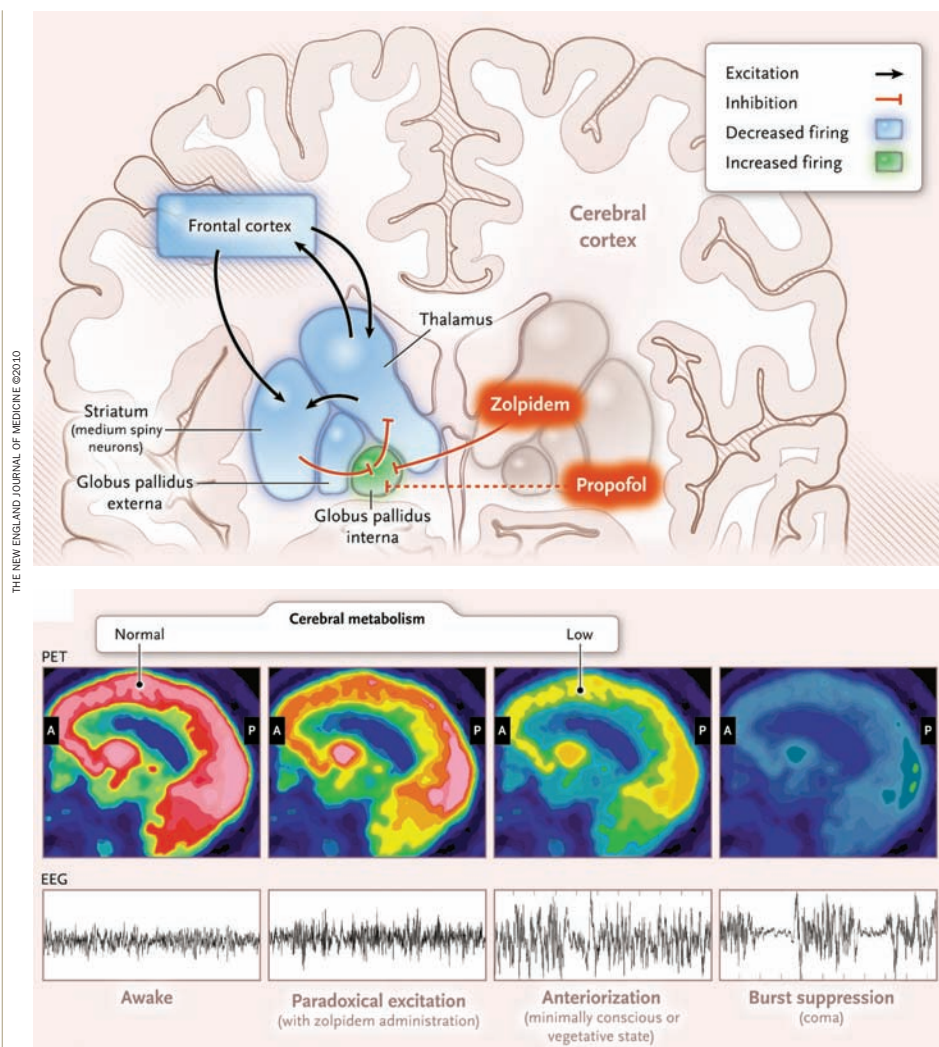
With its striking similarities to coma, general anesthesia may offer a window into the injured brain

Every day, some 60,000 patients in the U.S. undergo general anesthesia. If they were asked what the process consists of, many would likely describe it as “going to sleep” for the duration of surgery. But in biological terms, general anesthesia is far more akin to a reversible coma than to normal slumber.

Over the past several years, a trio of experts in anesthesia, sleep medicine, and coma medicine have been working together in the hope that by better understanding the intersections among these fields, they might advance all three. Last winter, the researchers—Nicholas Schiff, MD '92, a professor of neurology and neuroscience at Weill Cornell and an authority on recovery from coma after traumatic brain injury; anesthesiologist Emery Brown, MD, of Massachusetts General Hospital, MIT, and Harvard Medical School; and Ralph Lydic, MD, a sleep medicine expert at the University of Michigan—published their findings in the *New England Journal of Medicine*.

The article, an integrative review of the mechanisms of disease, details the commonalities and contrasts among the three states, focusing on the circuits by which the brain switches from wakefulness to unconsciousness and back again. “It was extraordinary how many deep connections we kept linking up that were not obvious to us,” says Schiff. “So a lot of the article is novel, a fresh organization of material on these three topics. People have looked at coma and anesthesia, and sleep and anesthesia, and sleep and coma—but what makes this different is that we tried to come together with some specific ideas about common circuit mechanisms. Nothing quite like this has been done before.”

Particularly powerful and potentially useful, Schiff says, are the similarities between general anesthesia and coma. “At levels appropriate for surgery, general anesthesia can functionally approximate brain-stem death,” the authors write, “because patients are unconscious, have depressed brain-stem reflexes, do not respond to nociceptive



Head space: An illustration that accompanied Nicholas Schiff's article in the *New England Journal of Medicine* shows a neural circuit model depicting links between phenomena observed during anesthesia and the metabolic and brain electrical activity changes observed in different stages of recovery from coma.

[painful] stimuli, have no apneic [breathing] drive, and require cardiorespiratory and thermoregulatory support.” In essence, anesthesia is coma in microcosm. While the recovery process of the former can last from minutes to hours and the latter from days to years, patients follow similar stages as they come out of either state.



Nicholas Schiff, MD '92

As patients emerge from anesthesia, they pass through what amounts to a vegetative state, then to a minimally conscious state, before returning to full consciousness. “It’s not that you’re in an anesthetic coma or a brain injury coma and then you’re awake and normal,” Schiff notes. “Those are the extremes. It’s the understanding of the unfolding of the process of recovery from either condition that’s the subject matter here.” Early clinical signs of emergence from anesthesia—such as the return of regular breathing, salivation, swallowing, gagging, and grimacing—echo the return of sensory, motor, and autonomic function in brain-injured patients, the researchers note; later signs, such as

response to oral commands, signal the return of cortical function. “What happens in all types of coma and what happens in all types of general anesthesia are comparable on some level,” Schiff says. “In both conditions, there is a massive reduction in background synaptic activity in the brain, affecting a mix of excitatory cells and inhibitory cells. The entire brain, in both situations, quiets dramatically, and one of the things that we’ve identified in our comparison of the two is that there are regularities in electrical phenomena and in circuit-level changes.”

Those similarities present a golden opportunity: by studying the biology of anesthesia, scientists could gain a much more comprehensive understanding of how the damaged brain emerges from coma. General anesthesia is safe, effective, and common—those 60,000 daily cases in America alone—while each traumatic brain injury is, in its own way, unique. “Since every brain injury is different, it poses a challenge to come up with general insights into the process of recovery,” Schiff says. “Anesthesia offers us a useful, rich, large, controlled database to understand that process.” That concept, he says, “is completely new; it is not the way people have looked at cross-talk between these fields.”

Weill Cornell researchers are now forging partnerships with colleagues at other institutions to gather massive amounts of data on recovery from brain injury; meanwhile, Brown and his colleagues are working to generate interest in comprehensive data-gathering on general anesthesia, through both monitoring of electrical activity in the brain and observation of behavior at the bedside. “It’s not like we have to go out and develop machines that are expensive and specialized, but what is going to be expensive and will require effort is collecting enough data, and analyzing it, to make the measurements meaningful,” Schiff says. “That’s hard, actually; it’s a lot of work. But it’s quite doable.”

Such data could offer invaluable insights into the “black box” of the injured brain. Physicians have long relied on behavioral observations and time after injury to indicate a patient’s likelihood of future recovery—but given that some people make astonishing strides years after injury, it’s clear that our understanding of the process has a long way to go. Doctors are now unable, for example, to gauge the efficacy of a particular medication if it has no outward effect, though it could potentially be helping in a way we can’t yet measure. The ultimate goal, Schiff says, is to build “a biology of the recovery of consciousness” that could guide future treatment. “That will change things,” he says. “Doctors are going to be saying different things about some patients—that’s for sure.”

— Beth Saulnier

Drugstore Doc

As chief medical officer for Walgreens, Cheryl Pegus, MD '88, aims to parlay the chain's 7,600-store footprint into better care for Americans in their communities

PROVIDED



Cheryl Pegus, MD '88

Cheryl Pegus, MD '88, never went to a Walgreens growing up; back then, the chain had no outlets in New York City, where she spent most of her childhood. But these days, Pegus visits the stores constantly in her role as Walgreens' chief medical officer, traveling from the company's offices outside Philadelphia. The job, which was created for Pegus a year ago, gives her responsibility for medical affairs; clinical quality, outcomes, and analytics; and clinical sales at a chain of more than 7,600 stores with 73,000 health-care providers of various types—from pharmacists behind the counter to nurse practitioners staffing in-store clinics to physicians at employer sites and specialty units that provide home care and infusion services. "There aren't many places that allow you to have a national reach," she says. "Many physicians with an interest in public health and population management want to take a holistic view of health care. I'm fortunate in that I'm getting to do just that."

In Pegus's view, Walgreens plays a vital role in health-care delivery—providing customers with treatment and information outside of physicians' offices, which may be out of reach due to logistics, finances, or access. "More than two-thirds of Americans live within three to five miles of a Walgreens store, and 50 percent of our stores are in communities that are underrepresented by health-care providers," says Pegus. "We bring health-care services into these locations, easing the burden on emergency rooms as a primary source of care. If you aren't able to make it to your doctor's office between nine and five, if you don't have health coverage, or if you don't have a primary care physician, you have a place you can go that interfaces with community physicians, making sure there is connected health care."

At modern drugstores, she says, "pharmacists don't just count pills." In fact, notes Pegus, the literature has shown that they play a vital role in patient adherence with medications, in preventing drug interactions, in co-managing patients with diabetes, and in forestalling future hospital admissions—particularly in underserved communities. "Once you leave the physician's office and go back to your daily life, if you want to talk to someone about clinical care, many people are more comfortable having these discussions with pharmacists and nurses," she says. "They use them as a link to their main health-care providers." And with the advent of health-care reform, she says, their role will become more important. "There aren't enough primary care providers in this country," she notes. "How will we manage 32 million more people? Who's there in these communities to provide care?"

Walgreens' retail clinics, Pegus says, use an electronic health record (EHR) system and coordinate with health-care systems and physicians to promote continuity of care for people in the communities they serve. "This is an important part of our value proposition," she says. "I have the opportunity to oversee Walgreens' research activity on clinical outcomes and their contributions to the scientific literature. Improving health-care delivery processes in this country is not just theoretical—it's important to demonstrate clinical and financial value."

Pegus's interest in aiding underserved and minority populations goes back to her youth. Born in Trinidad, she immigrated to Brooklyn as a child. After attending public high school, she earned an undergraduate degree from Brandeis before coming to Weill Cornell. She stayed on for an internal medicine residency and cardiology fellowship at NYP/Weill Cornell, then became medical director of the Cardiovascular Risk Factors Group at Pfizer. Prior to joining Walgreens, she earned an MPH from Columbia, held several positions with Aetna, and served as general manager and chief medical officer for SymCare Personalized Health Solutions, provider of the diabetes-management system InTouch. "After meeting Pegus," Jim Champy and Harry Greenspun, MD, wrote in their 2010 book *Reengineering Health Care*, "we would be hard-pressed to find a part of the health-care business she hasn't improved."

About a decade ago, Pegus endowed a Weill Cornell scholarship that helps support minority medical

students. As she sees it, the funding benefits both the students and the community. “We need a more diverse population providing care,” she says. “In a lot of underserved communities, the people who work

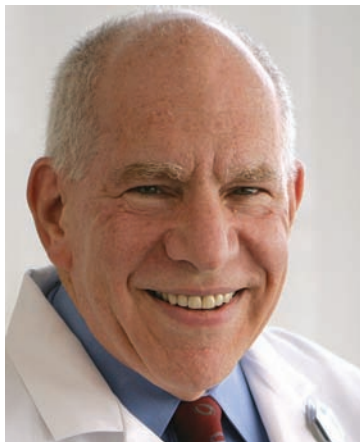
there are from there—but one of the great barriers is financing.” Mindful of the mentorship she received throughout her education, Pegus has maintained close ties with Weill Cornell, offering guidance to students and staying in regular contact with such mentors as Dean Antonio Gotto, MD, and clinical public health and medicine profes-

sor Lewis Drusin, MD '64. (She jokes that they give her advice so often, “they’re worse than my mom.”) “The mentoring I’ve had has made me feel that this job is not something different from what I went to medical school for,” Pegus says. “This is exactly what I went into health care to do.”

— Beth Saulnier

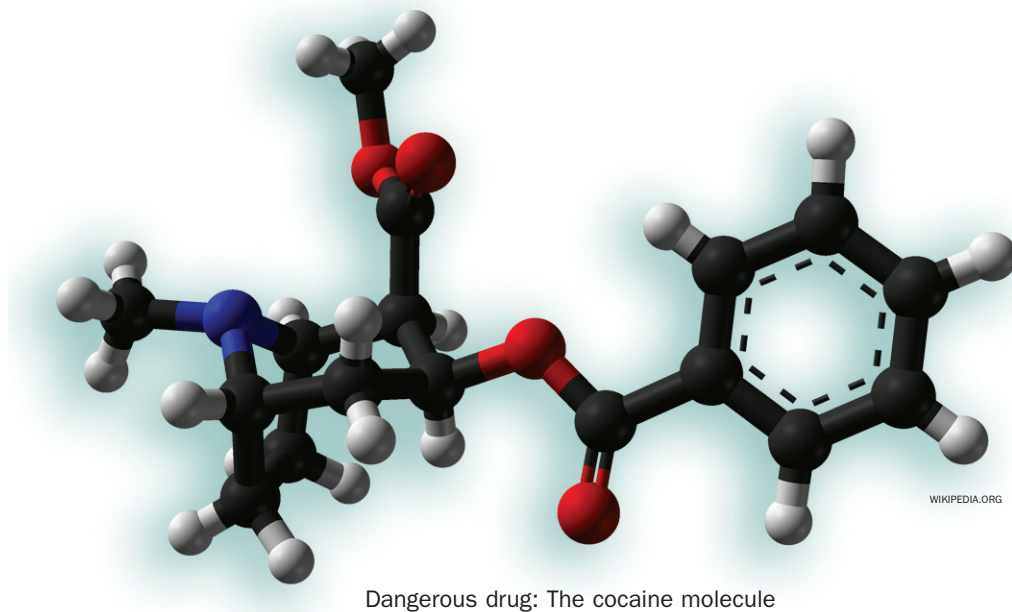
Breaking the Habit

A new vaccine shows promise in battling cocaine addiction



JOHN ABBOTT

Ronald Crystal, MD



Dangerous drug: The cocaine molecule

Overcoming an addiction to cocaine is a tough proposition. But soon there may be an easier way than going cold turkey for people seeking to get clean and sober: a vaccine developed by scientists at Weill Cornell, the Ithaca campus, and the Scripps Research Institute in California shows great potential in blocking the drug’s effects, at least in mice. “It has proven itself well enough that we think it has the promise of fighting the addiction in humans,” says Ronald Crystal, MD, chairman of genetic medicine at Weill Cornell and the lead investigator for an NIH-funded study on the vaccine. Preliminary data indicates that the vaccine, which could move into human trials in a year or two, may also be effective against heroin and nicotine addiction. The work was published in *Molecular Therapy* in January.

Crystal explains that in humans, small-molecule drugs like cocaine pass through our internal security systems unchecked, going straight to the brain’s pleasure centers. “The immune system doesn’t naturally tag cocaine as something to be destroyed,” says Crystal, chief of the Division of Pulmonary and Critical Care Medicine at NYP/Weill Cornell. The vaccine induces an immune response by combining harmless proteins from the adenovirus, which causes the common cold, with chemical structures resembling cocaine. (The researchers used a cocaine analog because it is more stable and elicits stronger

immunity.) Once injected, the vaccine seizes and sequesters cocaine molecules before they reach the brain—halting cocaine-related hyperactivity, a standard sign of a high in mice. A natural immunity to cocaine develops; whether the drug is injected, smoked, or inhaled, antibodies prevent it from getting to the brain.

In *in vitro* tests that were replicated hundreds of times, common lab mice generated powerful antibodies that were extracted and placed into test tubes and exposed to the cocaine analog; the antibodies surrounded and neutralized the drug as if it were an invading pathogen. The next tests were behavioral: mice that got the vaccine before being exposed to cocaine did not demonstrate hyperactivity, even after receiving large doses. The vaccine's effect lasted for thirteen weeks, a record compared to trials of other anti-cocaine vaccines, which have required "multiple and expensive infusions" in lab experiments at other institutions, says Crystal.

Such a breakthrough is not only important for individuals but for society as well. According to the NIH-affiliated National Institute of Drug Addiction (NIDA), the economic impact of substance abuse in the U.S., including health and crime-related costs, exceeds half a trillion dollars annually, including roughly \$181 billion for illicit drugs such as cocaine. The figures do not account for damage to families, unemployment, dropout rates, domestic violence, the strain on court systems, or the medical effects of withdrawal on addicts whose supply runs out or who try to quit alone. Currently, no FDA-approved anti-cocaine vaccines exist, Crystal notes, nor are there any new therapies ready to move into human trials. "An approach that works is desperately needed for cocaine addiction," he says, "which is an intransigent problem worldwide."

Crystal is quick to point out that the vaccine would not be a magic bullet, even if it works in humans. The addict must also have a sincere desire to quit, and the vaccine would work best in combination with traditional psychosocial therapies, such as twelve-step groups and talk therapy. But for those on the path to recovery, it could make a difficult process a great deal easier. "Cocaine activates the brain's reward center with a pleasure response," says Crystal. "Take away that reward and there's a fighting chance."

— Franklin Crawford

Ready for Anything

Student-researched guide helps hospitals prepare for disasters



ABBOTT

When it comes to emergencies, hospitals are where the buck stops in the health-care system," says associate professor of public health and medicine Nathaniel Hupert, MD, MPH. "There's a fundamental expectation that when public health disasters occur, people will be able to get care for serious injuries." But how can hospitals ensure that they're ready to cope with a major calamity—whether it's a terror attack like 9/11 or a natural disaster like Hurricane Katrina?

In December, Hupert and his colleagues at the Cornell Institute for Disease and Disaster Preparedness published an invaluable tool: the nation's first comprehensive, federally funded guide to hospital emergency preparedness exercises. "It became apparent over the past decade that there was a bewildering variety of rules, regulations, and recommendations about what is required of health-care institutions in preparing for an emergency," says Hupert, the Institute's co-director. "We realized that the volume of information being thrown at hospitals regarding preparedness exercises was massive."

In 2008, the federal Agency for Healthcare Research and Quality (AHRQ) and the Office of the Assistant

Secretary for Preparedness and Response in the Department of Health and Human Services contracted with Weill Cornell to conduct a comprehensive assessment of available resources on disaster preparedness exercises. Ten first-year medical students were hired to serve as research assistants; in teams, they dissected and evaluated more than 400 documents, from hospital accreditation standards to descriptions of proper costumes for actors in disaster simulations. “The scenario that Dr. Hupert gave us was, ‘Imagine yourself being told to plan a disaster exercise or to guide your hospital’s disaster planning procedures,’” says student researcher David Nissan ’12, a California native who will be commissioned as a Navy officer after graduation and plans to specialize in trauma surgery and critical care. “That could be pretty daunting. So the manual’s goal was to arrange the resources that could be used to help in that planning.”

After the students combed through the reams of material, research coordinator Melissa Cheung Miller, MPH, and assistant professor of public health Wei Xiong, PhD, spent the following summer writing the guide, with the help of Thu Vu ’12. The assignment offered valuable insight into how hospitals work, says Vu, who holds a master’s in neuroscience from Tulane and serves as president of her class. “Now that I’m in my third year, I see things on the level of day-to-day patient care,” she says. “Learning more about the overall structure helps me see why we do certain things, like why certain types of paperwork have to be filled out. It helps me understand the framework I’m working in.”

Alvin Mushlin, MD, chairman of the Department of Public Health, praised the team for its “innovative and careful work guided by technical expertise and real-world experience.” Said Mushlin: “Their well-organized toolset will help hospitals protect communities during public health emergencies when time is critical.”

The fruit of the faculty and students’ labors is available for download at www.ahrq.gov and will eventually be published in hard copy. Their work yielded three products: the complete guidebook, a quick-reference pocket guide, and a searchable atlas of the reviewed, exercise-related documents. “Before, hospitals were faced with a thicket of information,” Hupert says. “We tried to bring some order to it.”

— Beth Saulnier

‘Insight and Opportunity’

Physician-scientist Steven Gabbe, MD ’69, has used his own experience with diabetes to help expectant mothers with the disease

OHIO STATE UNIVERSITY



Steven Gabbe, MD ’69

After Steven Gabbe, MD ’69, diagnosed himself with diabetes as a third-year medical student, his adviser recommended that he reconsider his planned specialty, ob/gyn. “You ought to think about something that will give you a more controllable lifestyle,” Gabbe was told, “like ophthalmology, pathology, or radiology.” But Gabbe stuck with ob/gyn—and eventually channeled his own experiences as a patient into improving the outcomes for pregnant women with his disease. “I was determined,” says Gabbe, now CEO of Ohio State University Medical Center, senior vice president for health sciences, and an expert in managing diabetes during pregnancy, “that I was not going to let this bother me.”

In his four decades as a scientist and physician, Gabbe has helped countless diabetic women—who otherwise might have delivered stillborn or disabled children—to have healthy babies. One of his basic science findings, in 1972, had important clinical implications: while doctors previously believed that the placenta was not affected by a pregnant woman’s insulin levels, Gabbe showed that insulin could, in fact, alter its ability to provide energy to a growing fetus. The finding suggested that artfully controlling an expectant mother’s diabetes—whether she already had the disease or developed it during pregnancy—could prevent its associated malformations, stillbirths, and obesity. In two large trials, he proved it.

Bringing diabetes into his work wasn’t Gabbe’s original plan, especially when

he was learning to live with the disease as a twenty-four-year-old. Management of type 1 (formerly known as “juvenile”) diabetes, in which people don’t produce the insulin necessary to regulate the body’s use of glucose, was still crude back in the Sixties and Seventies. There were no blood-glucose meters; syringes were made of glass. When Gabbe first entered medicine, he admits, “I tried to avoid patients with diabetes—I didn’t want to see their problems.” Only during a fellowship at Harvard, where he met Priscilla White, MD, an expert in the care of pregnant women with diabetes who became his personal physician and mentor, did Gabbe’s feelings change. “That was a turning point for me,” he says. “I realized the more I learned about caring for pregnant women with diabetes, the more I’d learn about my own diabetes, and then I could share that with my patients. Living with diabetes has given me a real insight and opportunity to help people deal with the challenges.”

When Gabbe began his fellowship in reproductive medicine in 1970, some 10 percent of women who had diabetes before pregnancy delivered babies who were stillborn or had malformations of the heart, brain, spine, or skeleton. Because the placenta manufactures hormones, which increase insulin resistance, judging the right amount to give during pregnancy was tricky. Patients would be hospitalized from their thirty-second week on or have labor induced early to avoid a stillbirth or having their babies grow too large and then difficult to deliver. Infants who were born early sometimes died because their lungs were underdeveloped. “It was a very, very difficult problem,” Gabbe recalls.

The advent of blood-glucose meters, new forms of insulin, and insulin pumps made controlling diabetes easier. One trial Gabbe published from Los Angeles County Women’s Hospital in 1977 showed that closely monitoring glucose levels and fetal heart rate in diabetic patients could extend pregnancies nearly to full term. Another, at the same hospital, demonstrated that women who develop gestational diabetes in the third trimester aren’t at increased risk of delivering stillborn children—though they are at risk of developing type 2 diabetes within five to ten years. “The outcome for pregnant women with diabetes who get excellent care has become very close to that for women without diabetes,” Gabbe says. “Things have changed dramatically. As we’ve controlled the mother’s diabetes better and better, keeping her blood glucose more nor-

mal, we don’t see as many large babies, we don’t see the stillbirths, we don’t have to deliver the baby early.”

Gabbe credits much of his success and positive attitude to his wife of twenty-nine years, Pat, a pediatrician. The two collaborated on a 2000 study that showed that insulin pumps can effectively treat diabetes in pregnancy, and both are members of a group working to reduce preterm births in Columbus, where Ohio State is located. Gabbe’s other research has shown that ultrasound imagery can detect spina bifida in a growing fetus; in 2005, he wrote the American Congress of Obstetricians and Gynecologists’ clinical guidelines for managing diabetes complicating pregnancy. He is senior editor of *Obstetrics: Normal and Problem Pregnancies*, one of the leading textbooks in the field; his co-authors are Jennifer Niebyl, MD, and Joe Leigh Simpson, MD, both of whom he met when he was a medical student at Cornell.

Gabbe’s research has also been informed by his administrative work. His first leadership position came in 1975, when he led the student clerkship in ob/gyn at L.A. County. Since then he’s served as ob/gyn division director at the University of Pennsylvania and as department chair at Ohio State and the University of Washington, work that has led him to explore ways to improve leadership training in academic medicine. “I noticed at several important meetings that people were discouraged, angry, and unhappy about how things were going,” Gabbe recalls. “I wondered how we could prevent this.” The result: in 2002, Gabbe published a paper that found that burnout among department chairs can be minimized with supportive partners and family.

During Gabbe’s seven-year run as dean of the Vanderbilt University School of Medicine, beginning in 2001, its National Institutes of Health funding rose by 77 percent. He is now back at Ohio State, in his third year as CEO overseeing a \$2 billion enterprise, and has signed on for five more. “The first thing I’ve done in every leadership position is to have formal interviews with the leaders and staff and ask, ‘If you were me, what would you be worrying about? What would you take advantage of? What have we done well and not well? How happy are you, and what would make you happier?’ In this way, I’ve learned an enormous amount about the institution, and people really appreciate the chance to be heard.”

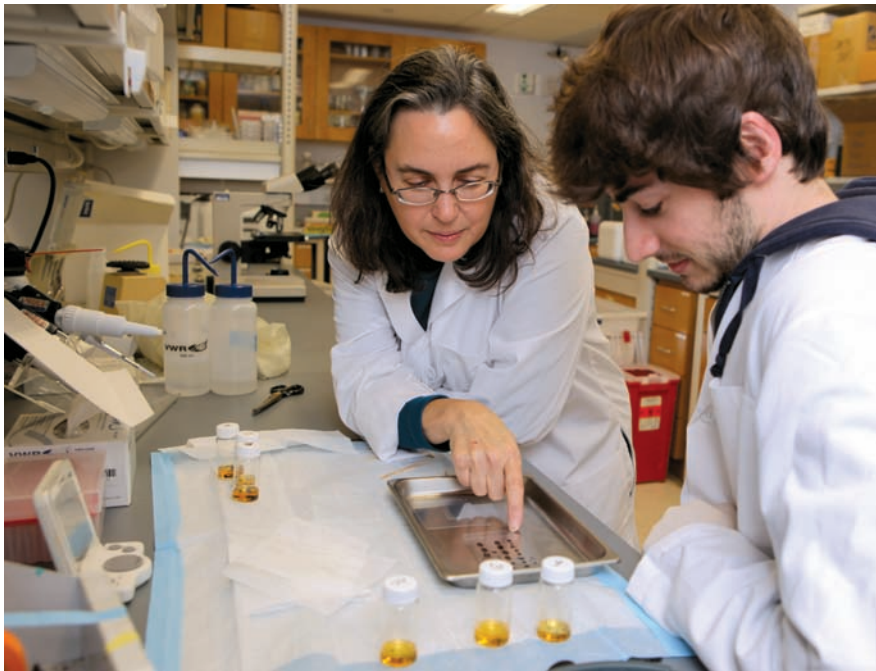
— Jordan Lite

‘I realized the more I learned about caring for pregnant women with diabetes, the more I’d learn about my own diabetes, and then I could share that with my patients.’

Setting a New Standard for Research

A superb facility honors the generosity
of the Feil family

On East 61st Street in Manhattan, next door to a nineteenth-century stone building covered in ivy, stands the Gertrude and Louis Feil Family Research Building. A seven-story, red-brick structure just steps from the East River, the building offers few clues from the outside of what goes on within: the work of Weill Cornell's Division of Neurobiology and the multi-institutional Clinical and Translational Science Center



JOHN ABBOTT

Neuroscience professor Teresa Milner, PhD, with a member of her lab, Eli Townsend-Shobin, at work in the Feil Family Research Building

(CTSC), which are conducting and facilitating groundbreaking research that has the potential to improve millions of lives.

"When I think of all those people in there trying to make discoveries that are so important to this country and this world, I find it truly thrilling," says Jeffrey Feil, a Weill Cornell overseer and son of the longtime Weill Cornell benefactors for whom the building is named. He and his sisters—Judith Jaffe, Marilyn Barry, and Carole Feil—and their families attended the dedication ceremony last fall. "My parents would have loved to know about the research going on in the building," Feil says, "and the enthusiasm of the people inside it."

Gertrude and Louis Feil, whose business was real estate, began giving to Weill Cornell in the mid-Eighties in the form of support for scholarship programs. Later, they established endowed professorships, funded clinical scholar awards, and offered capital support for the Judith Jaffe Clinical Unit for Multiple Sclerosis and Peripheral Neuropathy Center. Louis Feil passed away in 1999, his wife seven years later. A \$30 million gift from the Louis Feil Charitable Lead Annuity Trust, made as part of the *Discoveries that Make a Difference* campaign, led to the creation of this research and administrative building—which serves as a blueprint for twenty-first-century science.

For the Division of Neurobiology, the 70,000-square-foot facility provides optimal space for investigations into stroke, Alzheimer's disease, and the factors that lead to both. Headed by Costantino Iadecola, MD, the George C. Cotzias Distinguished Professor of Neurology and Neuroscience, the division has conducted landmark studies showing that antioxidant therapy can help reverse the effects of Alzheimer's; that subtle changes in blood flow in the brain may be early signs of the disease; that brain inflammation is an important contributor to the damage produced by stroke; and that fighting inflammation can help protect brain tissue from the effects of the disease.

Until the Feil Building opened in February 2009, the Division was housed in an early twentieth-century art deco building that, according to Iadecola, was more beautiful than functional. "It was a little like the city of Rome or the New York City subway," he says. "The old infrastructure was not conducive to modern research activities. In this new building, everything is up to current standards and designed to foster the interaction among investigators, a critical aspect of the creative process that drives science. There's a much more logical and functional design."

The Division of Neurobiology comprises about forty scientists who study similar topics but have varied areas of expertise, making efficient communication essential—and its space is designed to facilitate it. Interspersed among the offices that line the building's outer perimeter are conference rooms with state-of-the-art videoconferencing technology. Lunchrooms with tables designed for large groups anchor one end of the main corridor on each floor. A glass wall marks



ABBOTT

Well built: The Feil Family Research Building houses the Division of Neurobiology and the Clinical and Translational Science Center.

an inner perimeter, within which laboratories run almost the entire length of the building. "Everything we need is right here," Iadecola says. "It's efficient and reliable. Our research activities have been more productive and rewarding because of the outline of the building and research facilities. We are immensely grateful to the Feil family for making this change in venue possible."

Downstairs at the CTSC—a multi-institutional partnership that promotes translational research and multidisciplinary collaboration from bench to bedside and to the community, and is the hub of investigator-initiated clinical and translational research at Weill Cornell—effective communication is just as vital, says its director, Julianne Imperato-McGinley, MD. "This building has been wonderful," says

Imperato-McGinley, the Abby Rockefeller Mauzé Distinguished Professor of Endocrinology in Medicine and associate dean for translational research and education. "We now have a home where all major components of our Center come together."

The administrative home of the CTSC is a conduit through which resources and technology can be efficiently managed by CTSC staff. Working together in an open-floor environment with state-of-the-art technology, the staff provides services to CTSC researchers and students throughout the protocol and clinical and translational training lifecycle. The conference room that hosts outreach events and center-wide educational programs promotes collaboration within Weill Cornell and with CTSC partner institutions, and cutting-edge video and teleconferencing equipment provides a plat-

form for real-time interactive videoconferencing on health and wellness to community and faith-based organizations. "The CTSC is an extraordinarily complex entity," says Imperato-McGinley. "Having a central location facilitates the work we do, from supporting research to offering training to providing funding."

For Jeffrey Feil, the building is an appropriate way to mark his parents' gifts to Weill Cornell—and Weill Cornell's gifts to his parents. They were grateful for the care they received at Weill Cornell, he says, and for the friendships they formed with the physicians who watched over them. "Their doctors were always so compassionate," he says. "It meant a lot to them to be able to give back to the people who had helped them so much."

— Amy Rosenberg

Northern Exposure

By Beth Saulnier

A collaboration between Weill Cornell and Ithaca's Cayuga Medical Center gives students and residents a look at how medicine is practiced outside the big city

When William Gordon '11 was doing his primary care clerkship the spring of his third year, a patient came in complaining of vomiting and diarrhea. The man wasn't in New York City, though; under a collaboration with Cayuga Medical Center (CMC) that brings Weill Cornell students and residents to Ithaca, Gordon was training at a family medicine practice 200 miles north. The health-care setting was new, and so was the patient population—the man was a farmer and dog breeder, unusual jobs for the city. “The differential for somebody who lives in Manhattan and has vomiting and diarrhea is very different than for somebody who lives on a farm and breeds dogs,” says Gordon. “We were thinking pesticides. Or were the dogs sick with parasites? Had he done any butchering? Was he eating raw pork?”

This patient, and many of the others whom Gordon encountered during his six weeks in Ithaca, forced him to think beyond the medicine he'd been learning for the previous three years at an urban academic medical center—with its myriad specialists, advanced technologies, and established hierarchy of attendings, residents, and medical students. “Medicine in Ithaca is different from medicine in New York, which is subspecialty oriented,” says Gordon, who earned an undergraduate degree in history from Cornell in 2005 and will do his residency in internal medicine at Mass General. “Ithaca is more specialty and primary care. People go to their family-medicine doctors and stay with them for their entire lives. A lot of things that in New York would get sent out to a specialist right away are dealt with by the primary-care doctor first.”

During his six weeks in Ithaca, Gordon was exposed to a variety of health-care settings; he spent time in the local hospital and at a downtown family-medicine practice and worked with a gastroenterologist, a cardiologist, rehab medicine staff, and a nurse practitioner who does home visits. He also



JASON KOSKI / UP

Campus care: Anastasia Grivoyannis '11 and Robert Korom '12 at Cornell's Gannett Health Services, one of several health-care facilities where they worked during their six-week, Ithaca-based clerkship this spring

'The notion that the clinical examination is still a vital part of what it means to be a physician is reinforced in this kind of environment.'

spent two weeks at Cornell's campus clinic, Gannett Health Services—which Gordon had visited when, as an undergrad, he broke his left pinkie playing football. "In terms of clinical stuff, one of the things I noticed in Ithaca was that the presentations for diseases were much more classic, what they call bread and butter medicine," notes Gordon, who hauled staples like salsa and peanut butter back to New York at the end of his visit, marveling at the comparatively low prices in Ithaca supermarkets. "Things I never

really saw in Manhattan, like the patient with gout who has the inflamed big toe that you always read about, were much more common. You spend less time thinking about these super-complicated patients who have multiple comorbidities; it was more straight up. I think that helps, because a lot of the medicine you'll see when you go out into the world is going to be like that."

Giving physicians-in-training a more comprehensive view of how community medicine is practiced is one of the major aims of this clerkship program, which has brought some three dozen students and a dozen residents to Ithaca since fall 2009. The collaboration, participants say, is good for all concerned: the students, the physician mentors, Weill Cornell, Cayuga Medical, and the Ithaca community. "There are big benefits on all sides," says Adam Law, MD, an endocrinologist who jump-started the collaboration during his term as CMC staff

president and now mentors visiting students. "Many of the local physicians are very experienced, and everybody likes to pass on their knowledge, but we had no vehicle to do that. It always seemed strange to me, being a physician and an academic, that you couldn't be an academic physician in Ithaca."

Now, some two dozen CMC physicians have adjunct clinical faculty appointments, with many others currently in the process of having their credentials reviewed by individual departments. Among those with privileges at both NewYork-Presbyterian Hospital and CMC: cardiologist and Cornell president David Skorton, MD, an ardent supporter of the collaboration since its inception. In addition

to giving students and residents a wider perspective and deepening the relationships among staff at the two hospitals, Skorton says, the program offers the Ithaca-based mentors the invaluable experience of working with doctors-in-training. "The physicians get to interact with medical students and residents who, like bright young people everywhere, are asking questions," Skorton says. "They're learning things for the first time—and like all teachers, the physicians

are seeing the world anew through their eyes. That is a terrific, gratifying experience."

One of those CMC mentors is David Feldshuh, MD, PhD—who, in addition to being a professor of theatre at Cornell, is board certified in emergency medicine. Each month, he does about a half-dozen shifts at CMC's Convenient Care Center, a satellite emergency clinic located a few miles from campus. He is occasionally shadowed by Weill Cornell students, including two this spring whom he guided in inserting their first-ever intravenous lines. "Besides having a great time and being challenged in a positive way to answer questions, it was extraordinarily fulfilling, because it gives you a sense that people value what you know and you can contribute in some small way to the growth of the future physician," says Feldshuh, a clinical instructor of emergency medicine at Weill Cornell. "That kind of interaction keeps you on your game."

Among the lessons Feldshuh aims to impart is the essential role of the clinical exam—particularly outside the context of a tertiary care center. "The notion that the clinical examination is still a vital part of what it means to be a physician is reinforced in this kind of environment," Feldshuh says. "You're not going to send everybody to get a CT of the abdomen, especially if they come into an urgent care center and you need to decide whether to send them to the hospital. Frequently, you have to make that decision based on the physical exam plus a limited number of modalities."

The chance to have that kind of extensive, one-on-one exposure to attending physicians is another of the program's attractions. During his time in Ithaca this spring, Robert Korom '12 got to work with attendings in a variety of fields, including internal medicine, family medicine, pediatrics, urology, and orthopaedics. Because he was working outside the context of a traditional teaching hospital, he says, the dynamic was different. "Overall, there was probably more responsibility given to us in Ithaca," says Korom, "because there were no residents between us and the attendings." In addition to sampling such Upstate delights as skiing at nearby Greek Peak and chowing down at Ithaca's annual chili festival, Korom relished the chance to see how small-town doctors live and work. "I like the idea of everyone in the community knowing each other," says Korom, a Milwaukee native who was an undergraduate at the University of Wisconsin, Madison. "It's nice to see your patients in the supermarket. Being more in tune to the community, you are more in tune with your patients. I think there's a huge benefit to that."

Korom enjoyed the chance to get out of the city for six weeks, to have a break from the intensity of New York and of Weill Cornell. Although Ithaca has a slower pace, he says, he learned that its physicians are no less dedicated than their urban counterparts. "It's nice to get away from the pressure cooker of medical school for a while," says Korom. "To remove yourself from that reminds you that it's not just about academic concerns, it's also about being there for your patients, like a lot of these primary-care physicians. What I really learned from them was a sense of professionalism: I am this person's



CORNELL UNIVERSITY PHOTO

David Feldshuh, MD, PhD

doctor and if I'm not there, it's not like the next resident coming on call is going to take over. This person's health is my responsibility."

The Ithaca-based program—which may expand to fields like pediatrics and ob/gyn—is one of just two outside the New York metro area where students can satisfy a required Weill Cornell clerkship, notes associate professor of clinical medicine Byron Demopoulos, MD '91; the other is at Methodist Hospital in Houston. "But actually, the experience at Methodist is quite comparable to NewYork-Presbyterian," says Demopoulos, who oversees the clerkship. "Both are big, academic, tertiary medical centers, whereas having primary care up in Ithaca presents a different set of experiences. Here, when students and residents see patients on the floors, they do so with the entire weight, subspecialty expertise, and cutting-edge technology of NewYork-Presbyterian. When you have all of that looking over your shoulder and propping you up, you almost take it for granted. But in a smaller community medical practice, the generalists tend to treat patients with an empiricism that is refreshing for students to be exposed to."

Law hopes that a formal, combined residency program in primary care will eventually be established, with participants spending two years in Ithaca and one in New York. He notes that having Weill Cornell physicians-in-training in Ithaca represents something of a homecoming: until 1938, Cornell medical students had the option of doing their two years of preclinical training in Ithaca, and the campus's Stimson Hall was designed for medical studies, complete with dissection labs. Going forward, he sees possibilities for closer collaboration on a range of fronts, including biomedical research, and hopes that academic medicine will have an increased presence in Ithaca.

Marianne Camargo, MD, was the first Weill Cornell resident to come to Ithaca under the collaborative program; her work sites included Gannett, a hematology/oncology practice, Convenient Care, and Law's endocrinology practice. "I was most impressed by the broad range of diseases that one subspecialist saw," says Camargo, noting that Law treated cases related not only to endocrinology but to internal medicine, rheumatology, and pulmonology. "It was eye opening. It gives you an idea of the wide range of possibilities in internal medicine." Gannett offered the chance to work with a patient population that students and residents rarely encounter at NYP/Weill Cornell: predominantly healthy people in their late teens and twenties. "You're not following chronic diseases; they come in because they have a cold, a rash, a sinus



ROBERT BARKER / CU PHOTO

Change of scene: Gannett Health Services on campus (above) and Cayuga Medical Center (below) on Ithaca's West Hill

infection," says Gordon, noting that hospitalized patients inherently skew older and sicker. "That's different from somebody who has diabetes, hypertension, high cholesterol, and pneumonia."

The students and residents who come to Ithaca are housed in a downtown apartment provided by CMC, with funding available for transportation via bus and taxi. This spring, Korom's housemate was Anastasia Grivoyannis '11, a Bronx native who is bound for a residency in emergency medicine at the University of Washington. "Because physicians in Ithaca don't work with med students all the time, they're waiting for our cues to find out what we're capable of, what our responsibilities should be," Grivoyannis says over lunch in a café in Ithaca's Collegetown neighborhood. "Physicians who are used to being with med students all the time know what to expect from a third-year or fourth-year, what our knowledge base is. I think it's more of a challenge for doctors up here to gauge that, and all of them have been extremely flexible and interested in augmenting our education in as many ways as possible."

During her time in Ithaca, Grivoyannis relished the chance to interact with grad students from different fields, such as business and veterinary medicine. And, like Gordon, she was already familiar with Ithaca's East Hill, having earned an undergrad degree in chemistry in 2006. In addition to working at Gannett, Grivoyannis spent time in the CMC emergency department, at a sports medicine practice, and with an internist. Though much of primary care involves treating a litany of familiar conditions, she says, she was impressed



STEFANIE GREEN

Search Engine

A continuing education course taps Weill Cornell faculty to give Ithaca-based MDs a primer on navigating the medical literature

On a Thursday night last December, a dozen physicians from Ithaca's Cayuga Medical Center meet in a classroom on the Ithaca campus for a continuing medical education course on evidence-based medicine. Public health professor Madelon Finkel, PhD, and Helen-Ann Brown Epstein, head of education and outreach at the Weill Cornell Medical Library, are leading a discussion on a viral skin infection that one of the participants, a pediatrician, had just seen in a two-a-half-year-old girl. The question at hand: is severe molluscum contagiosum associated with immunosuppression?

"It's spread by direct skin-to-skin contact," Finkel notes. "So do you think she gave it to her brothers? Or they had it first?"

"She's the youngest, so the brothers had it first," the pediatrician offers. "It's a very common skin condition. What's unusual is that she had such a large flare."

"She's not HIV positive?" Finkel asks. "Or any of the boys?"

"She tested negative at birth, and we have only that test to go on," says the pediatrician. "I don't know how long she's had it, but at least several months, and it has just recently flared. When she came in today, her diaper area was covered with it."

For the next hour, Finkel and Epstein guide the physicians through online searches of the medical literature using resources like PubMed, the premier resource from the National Library of Medicine for searching biomedical literature, aiming to see if the toddler's skin infection could herald immune issues—and how the child might best be treated.

They find intriguing, potentially relevant studies in sources like the *International Journal of*

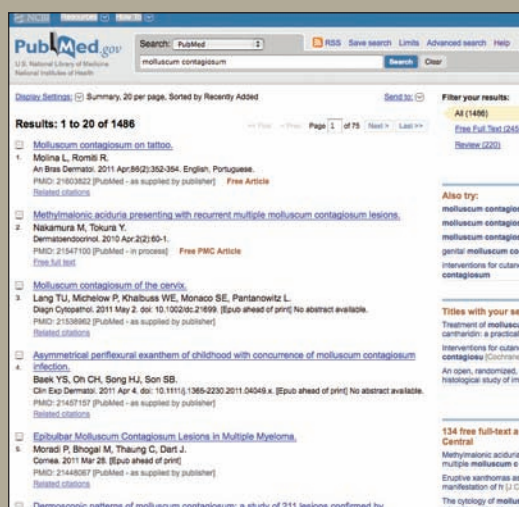
Dermatology, but no definitive answer. "These are real-world issues," Finkel says. "These are patients coming into your office every day. Sometimes a perfect article will appear and tell you exactly what you need to do and everything is marvelous and wonderful—and in other cases it takes more searching. But I think we arrived at a couple of suggestions to further test the young girl as well as her brothers to rule in or rule out possibilities." Epstein suggests consulting a textbook, possibly in dermatology,

immunology, or pediatrics. "See if you can get a bit more background before you jump to the journal literature," she says. Adds Finkel: "Sometimes PubMed is just not going to do it for you."

Throughout the discussion, Finkel and Epstein are 200 miles away; the classroom is wired for distance learning, with one screen showing the two teachers and another the desktop of Epstein's computer. The class, the first full-scale continuing medical education course offered jointly by Weill Cornell and CMC, tapped technology to bridge the gap between New York City and Ithaca, giving the hospital's physicians the benefit of Weill Cornell's faculty expertise. Six of the ten sessions were taught remotely, with Finkel traveling to Ithaca for the first two and last two meetings. "We wanted to do something that affects the practice of all doctors," says former CMC staff president Adam Law, MD, who helped launch the course, "not a specific content area like heart failure or varicose veins, but something that every doctor has to know about." A case-based primer in navigating online research resources seemed an ideal first topic for what is hoped to be an annual offering, Law says. "This is the first time these three campuses were integrated in this way, where you had physicians affiliated with Cayuga Medical Center participating in a course taught by Weill Cornell faculty and housed in facilities at Cornell University," Law says. "I think it's a fantastic precedent."

CMC emergency physician David Feldshuh, MD, PhD, took the course with the aim of expanding his knowledge as evidence-based approaches become increasingly important; he also craved some practical advice on researching a medical condition affecting his 100-year-old mother. "The teachers were very gracious, open to questions, and flexible," says Feldshuh, a clinical instructor of emergency medicine at Weill Cornell who is also a professor of theatre at Cornell. "The course introduced me to a new vocabulary, and the distance learning part—if not completely natural—is a great way to make things possible that might not happen otherwise."

The course is just one way that physicians at CMC and Weill Cornell have been working together, as leaders of the two institutions promote collaborative efforts to enrich both. Plans are in place for Weill Cornell grand rounds to be simulcast in Ithaca; Medical College faculty are giving individual continuing education lectures, both in person and remotely; CMC physicians have received faculty appointments at Weill Cornell and are helping to train students and residents. "The physician groups in New York City and Ithaca are getting to know each other better," says President David Skorton, MD. "It's a very positive relationship in both directions."





JOHN ABBOTT

Marianne Camargo, MD

by the variety of diseases she encountered. “We saw some zebras—some really interesting, unusual illnesses,” she says. “We had a couple of patients with Marfan syndrome who were being followed by a cardiologist, but whom a primary-care doctor was taking care of. There was also a Cornell student with Ehlers-Danlos syndrome, which is a connective tissue disease that’s limiting her physical activity on campus; the physicians at Gannett are treating her both psychologically and medically.”

Grivoyannis also worked with Finger Lakes Migrant Health, a free clinic for agricultural workers, such as seasonal fruit and vegetable pickers and dairy industry laborers. Such exposure to medically underserved rural communities is another of the program’s benefits, supporters say; while trainees at Weill Cornell have opportunities to work with underserved inner-city populations, practicing in a large metro area inherently limits their perspective. “One thing that was missing was the dimension of clinical experience in rural health,” says Andrew Schafer, MD, chair of the Department of Medicine. “A really good educational and training environment will expose them to the entire spectrum of health-care delivery and the diversity of our country’s population. It’s hard to do in New York City. We may have tremendous ethnic, religious, and socioeconomic diversity, but they can never see delivery of health care in underserved remote areas.”

Another boon to students and residents, Schafer says, is exposure to “a first-class community hospital” like CMC. “They have experiences in some of the urban hospitals here, which are really good, but those are very different in terms of their scope of activity, the patients they work with, and the way medicine is practiced.” Schafer also notes that the collaboration, and the status of being associated with a teaching hospital affiliated with an elite medical school, have clear advantages for CMC. “I think the hospital will be a much more attractive place to physicians,” he says. “We see this as

a magnet that will bring a lot of people who want to work there—not to mention that some of our trainees at Weill Cornell, who have had the experience of being there, may choose to begin their medical careers there.”

For Erica Miller ’11, the chance to spend six weeks in Ithaca was a major draw. Ithaca is not only her college town (she earned a bachelor’s degree in biology and Spanish in 2006) but her hometown as well; her parents are both on the Cornell faculty, her mother in community nutrition and her father in food science. During her clerkship in November and December 2009, she lived at home, studied in her favorite Cornell library, and worked in a variety of settings, including a family medicine practice in the nearby village of Trumansburg. “I got a lot of career exposure and advice,” says Miller, whose Ithaca preceptors included her own pediatrician, Marguerite Uphoff, MD. “It was a great way to try out different career paths and see what people’s practices and lives are like.”

Miller, who will do a combined internal medicine and pediatrics residency at the University of Rochester, was especially moved by the close, long-term relationships that physicians in the Ithaca area have with their patients. “That’s something I love and that I hope I can have doing med-peds, taking care of different generations of the same family,” Miller says. She recalls being impressed when one physician mentor, who was treating a homebound patient with a chronic disease, casually mentioned that on her way home she was going to stop by to make sure the woman’s oxygen was running correctly. “One thing I didn’t necessarily realize starting medical school is how the people you work with impact your choices,” says Miller. “This gives students exposure to things they may not see if they did all their training in New York City. And because what you see shapes where you apply for residency, it can change your whole career.” ●

William Gordon ’11 and Erica Miller ’11

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FOTORESEARCH

A Difficult Age

By Sharon Tregaskis

As the vanguard of the Baby Boom reaches the elder years, medicine faces a growing epidemic of geriatric depression—and Weill Cornell researchers are working to combat it

Life would be infinitely happier,” Mark Twain once quipped, “if we could only be born at the age of eighty and gradually approach eighteen.” Much of the sadness Twain refers to owes to the realities of aging—the deaths of friends and loved ones, changing roles in society, cognitive decline, and a host of inevitable failings as our bodies age.

Most people maintain an even keel despite such trials—and often become more resilient, psychologically. Yet when illness and physical disability strike, as they often do when age takes its toll, the risk of an episode of clinical depression nearly triples. Not only are depression and its associated symptoms of disrupted sleep and joylessness miserable in their own right, they also exacerbate many other conditions common to older adults, including heart disease, diabetes, and chronic obstructive pulmonary disease. Depression also makes pain less tolerable, decreases people’s ability to function independently, and increases the risk of a fall bad enough to require a physician’s care. “We don’t think about the roller-blading ninety-year-old when we think of geriatric depression,” says associate professor of clinical psychology in psychiatry Jo Anne Sirey, PhD, who conducts research on interventions to improve treatment participation and adherence. “It is more than age that characterizes geriatric depression—it is depression in the context of comorbidities.”

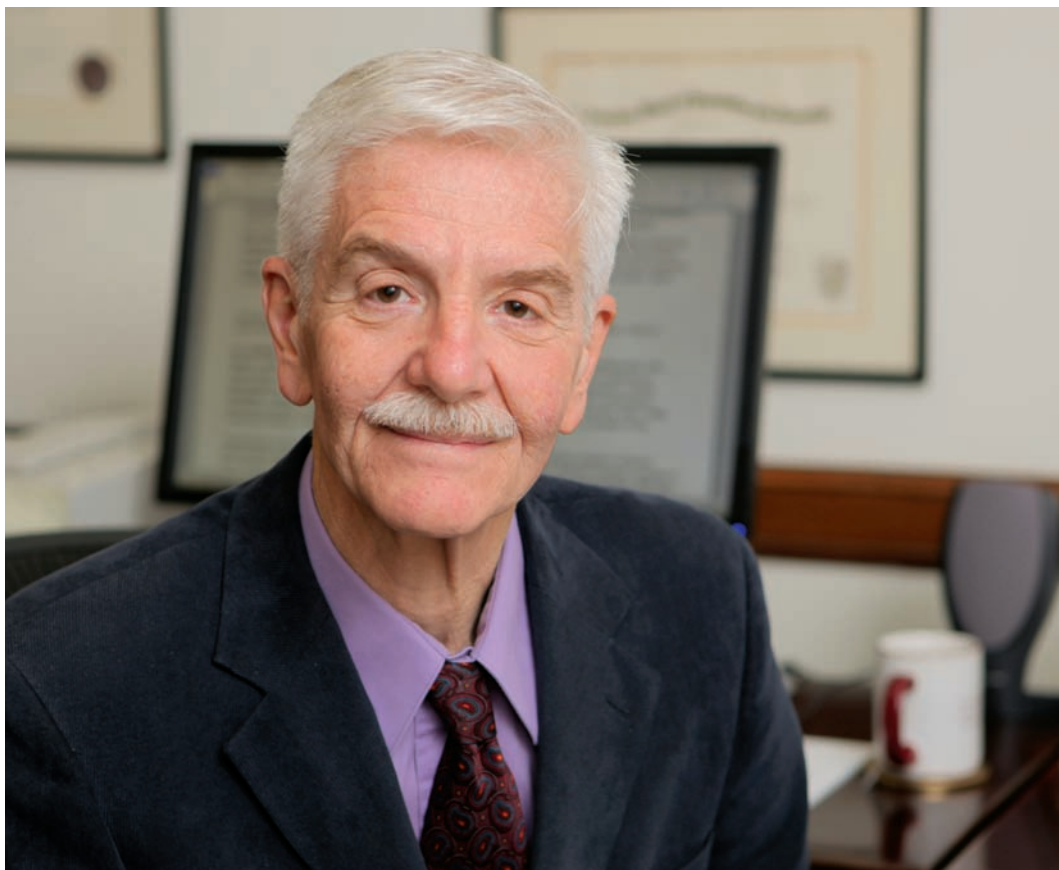
Yet depression in the elderly remains improperly diagnosed, undertreated, and generally misunderstood. In 2009, the National Institutes of Mental Health awarded Weill Cornell’s Institute of Geriatric Psychiatry a five-year, \$10 million grant to establish the Advanced Center for Interventions and Services Research (ACISR) in White Plains, to investigate the biological, medical, and psychosocial underpinnings of depression among older adults and develop new ways of combating the condition.

Headed by George Alexopoulos, MD, who also founded and directs the Institute of Geriatric Psychiatry, the ACISR studies biological abnormalities contributing to resistance of geriatric

depression to antidepressants and develops novel interventions for treatment-resistant depression, as well as finding methods for facilitating the implementation of evidence-based treatment in the community. “The elderly population is growing exponentially,” says Alexopoulos. “Predictably, 15 percent will develop clinical depression. Improving the quality of treatment for geriatric depression has direct implications for the overall care of the older person.”

When Alexopoulos homed in on geriatric

George Alexopoulos, MD



JOHN ABBOTT



JOHN ABBOTT

Jo Anne Sirey, PhD

psychiatry nearly thirty years ago, it didn't even exist as a discrete field and the primary social connection for most of his patients was extended family. "My patients now have different family constellations than they did then," he notes. Yet some things remain the same. "Older people are going through a period of dynamic change of the central nervous system, their individual psychology, and the social environment in which they exist." Despite the rich fodder for investigation, geriatric research was, in Alexopoulos's words, "totally neglected." There was scant literature describing the course of psychiatric disorders among people over sixty-five and almost no research being conducted to reveal how such conditions interact with the aging process or to test new treatments. In the intervening years, Alexopoulos has authored more than 350 articles on the psychobiology of geriatric mood disorders and their treatment, while pharmaceutical advances including Prozac and other antidepressants have expanded the physician's arsenal.

Yet perhaps the most significant impediment to effective treatment for geriatric depression and other psychiatric afflictions among older patients—deeply entrenched attitudes about mental illness and old age—remains unchanged. "People expect older people to essentially live marginal lives—to be on the periphery of society," says Alexopoulos. "So they also expect them to be depressed."

Major depression, as defined by the American Psychiatric Association's *Diagnostic and Statistical Manual of Disorders* (DSM-IV), is not the same as trouble adjusting to retirement or even grief at the death of a spouse, says sociologist and psychiatric epidemiologist Martha

Bruce, PhD, who serves as vice-chair for research in the Department of Psychiatry and as co-director with Alexopoulos of the ACISR. "There's an assumption that depression is purely an understandable psychological reaction to stuff that is going on, instead of a medical illness," she says. "Psychiatrists know that profound depression—a diagnosis—is not just a reaction to disappointment in life."

Without treatment, clinical depression exacerbates social isolation, makes it more challenging for people with chronic diseases like diabetes to manage their conditions, and leads to suicide, which is highest among elderly populations. "People say, 'Oh, I understand why you're depressed.' Does that mean we don't do anything about it?" says Bruce. "If you went skiing and broke your leg, I would understand why it had broken, but that doesn't mean I wouldn't repair it. There's this aspect of depression being understandable, inevitable, and something to tolerate. It's partly ageism and it's partly that there's so much stigma about mental illness."

In January, the first of America's 78 million Baby Boomers marked their sixty-fifth birthdays. Over the next twenty-five years, nearly 75 million people will become Medicare eligible. Geriatricians have been saying for decades that their own ranks weren't swelling fast enough to keep pace with the tsunami of health-care demand the Boomers will create. Fewer than 8,000 of this nation's 900,000 physicians are trained geriatricians—one for every 2,500 Americans currently over sixty-five. If current trends persist, by 2030—when the youngest Baby Boomers become Medicare-eligible—there will be just one geriatrician for every 4,254 older Americans.

When it comes to mental health care expertly tailored to the social, biological, and cognitive reality of older Americans, the numbers look even worse. "There aren't enough geriatric psychiatrists," says Alexopoulos, who in 1999 co-authored a consensus statement on the imminent crisis in the field in the *Archives of General Psychiatry* and says things haven't improved much in the interim. Given the pace at which the American population is aging and the time and expense associated with training geriatric psychiatrists, Alexopoulos advocates a triage approach to enhancing psychiatric care for older patients, one that emphasizes the contributions of primary care physicians, visiting nurses, and other community-based service providers. "You have to bring to bear other kinds of people



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Martha Bruce, PhD

who are more available—and more affordable—to help older people.”

Because depression disproportionately strikes those elders already grappling with disability, poor health, and limited resources, Martha Bruce has focused her research on boosting the awareness and efficacy of the professionals who care for seniors, including primary care physicians and home health agency nurses. Americans over sixty-five comprise 13 percent of the population but 18 percent of all suicide deaths in the U.S. To identify those elders most at risk of self-harm and get them help, the PROSPECT study—a collaboration among Bruce, Alexopoulos, and scientists at the University of Pittsburgh School of Medicine, the University of Pennsylvania, the Veterans Administration, and the National Institutes of Mental Health—developed an intervention for primary care practices in New York City, Philadelphia, and Pittsburgh.

Beyond training the twenty participating physicians to detect depression and other symptoms of suicide risk and offer appropriate treatment, the study also provided patient care managers. Bruce served as first author of the paper reporting the group’s findings, published in 2004 in the *Journal of the American Medical*

Association. “Someone who has the expertise to talk with patients, physicians, and families and has expertise in depression—who can bring information to the physicians who are making clinical decisions—provides more intimate care over time so that the physician can do his or her best,” she says.

More recently, Bruce developed Depression Care for Patients at Home (Depression CAREPATH), a protocol for visiting nurses who see geriatric patients through Medicare-certified home health agencies. “Home health-care nurses get a better sense of what’s going on than anyone else,” says Bruce, who notes that depression rates among individuals receiving such services is nearly double that of populations with the mobility and functional independence to see a primary care physician. “It’s a thorough, 360-degree assessment of a person and their needs that you really can’t do during an office visit.”

Bruce and her CAREPATH collaborators at Weill Cornell, the Community Health Care Services Foundation, Inc., and four home health agencies in New York State, designed the protocol to incorporate mental health screening and management into the roster of routine care already monitored by visiting nurses. The program’s in-

‘Home health-care nurses get a better sense of what’s going on than anyone else. It’s a thorough, 360-degree assessment of a person and their needs that you really can’t do during an office visit.’



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Faith Gunning-Dixon, PhD

Relationships between scientists and community-based providers demand many of the same skills as forging a healthy marriage. 'It involves courtship, figuring out how you do or don't work well together.'

service training curriculum taught the nurses how to glean more insight from forms they're already required to complete for Medicare, making it possible to incorporate depression screening and management into the roster of other chronic illnesses—including diabetes and high blood pressure—already in the nurses' purview during repeat visits. "Ten years ago, we'd find that many people with depression wouldn't be recognized for treatment," she says. Increasingly, older adults are diagnosed with the disease and even prescribed antidepressants, but at insufficient doses and without regular evaluation of the medication's effects or the fine-tuning such prescriptions require to be effective. "The big issue now is that people might get started on antidepressants, but there's no management over time to assess whether it's the right treatment and whether they are staying with it."

To extend the utility of CAREPATH nationwide, Bruce and her colleagues designed elements of the protocol to be tailored to each home health agency's administrative structure. Each agency adopting the protocol crafts its own guidelines for case coordination and nurse-initiated referrals and develops materials such as lists of local resources. Templates for training and reference materials can be modified to match the look of an agency's existing forms and handouts to present the program as an integrated element of the agency's efforts. "We're doing interventions where we're clear about the expectations, but also about what can be tailored to fit seamlessly into routine care and adjusted to fit into the organiza-

tion," says Bruce. "It's a process of assimilation and adaptation. You need to do that if you're going to develop interventions that work."

Alexopoulos's recent research has focused on predicting who will respond to pharmaceutical interventions and developing alternative treatments for those who won't benefit from a prescription. Much of his work has concentrated on the brain's white matter, the myelinated bundles of axons that connect neurons and facilitate higher-order thinking. He studies the lesions created by aging to reveal how changes to the physical structure of the brain affect cognition and emotion. "It gives you a great opportunity to study in humans something that you can't in other age groups," he says. "It's like a laboratory of nature."

Alexopoulos had already demonstrated that interviews probing cognitive function could predict which older patients are least likely to benefit from antidepressants. In 2004, Faith Gunning-Dixon, PhD, came to Weill Cornell to work with Alexopoulos on the biological side of the Institute, investigating whether the regions of the brain associated with the cognitive functions he'd been testing in the interviews showed structural changes. Now an associate professor of psychology in psychiatry, Gunning-Dixon uses a variety of techniques, including fMRI and diffusion tensor imaging, to answer that question. "There are certain functions—aspects of memory and the ability to juggle multiple things at one time—that decline with age," she says, "and those declines correspond to certain physical changes in the brain."

Alexopoulos and Gunning-Dixon have paid particularly close attention to changes in executive function—the ability to prioritize tasks and pursue goals—and how it relates to connectivity among regions of the brain. Most imaging of the living brain has focused on what happens in discrete regions as a patient performs a directed task—recalling a happy or sad event, looking at photographs, and the like. Alexopoulos and Gunning-Dixon have instead examined the brain at rest, documenting the patterns that persist even when subjects let their minds go blank. "If the patient is in the MRI and you ask them to lie still and not think about anything, the activation of certain parts of the brain seems to be in synchrony," she says. "Even if they're in remote parts of the brain from one another, those areas seem to be functionally integrated." That integration seems to underlie the capacity for executive function. "If the connectivity is poor or abnormal, then the brain is not going to function as efficiently," she says. "Depending on what regions you're talking about, this might underlie both the cognitive and mood symptoms that we see in geriatric psychiatry."

With associate professor of psychology Dimitris Kiosses, PhD, Alexopoulos has begun exploring alternatives to pharmaceutical treatments for homebound elders with decreased executive function, using a twelve-week program of counseling known as PATH that helps patients increase their capacity for problem-solving. “We go to people’s houses and try to make environmental changes to improve their function,” says Kiosses. “We use some compensatory strategies—a calendar, signs, reminders—to bypass their cognitive and functional limitations, and we involve the caregivers.” At the first session, the patient and a visiting caseworker create a list of concerns, rank their significance, brainstorm possible solutions, and evaluate options. For someone struggling with challenges beyond their own capacities—trouble getting to doctors’ appointments or paying for prescription refills—the caseworker might facilitate connections to appropriate social services. But because the program also aims to increase the capacity of patients to promote their own well-being, the patient takes responsibility for tackling some tasks on the list before the next session. “By helping them solve the problems of everyday life, it helps reduce their depression,” says Kiosses. “It’s not a perfect solution, but it’s the best possible solution, and it helps improve their mood.”

To ensure that research by investigators like Alexopoulos, Bruce, and Kiosses has relevance beyond the ivory tower, Jo Anne Sirey forges connections among scientists and the community-based service providers who work directly with older people. Such relationships demand many of the same skills as forging a healthy marriage, says Sirey, director of the ACISR’S Community Network Core. “It involves courtship, figuring out how you do or don’t work well together, how your goals overlap, how you will work toward your goals together,” she says. “It takes a lot of time.”

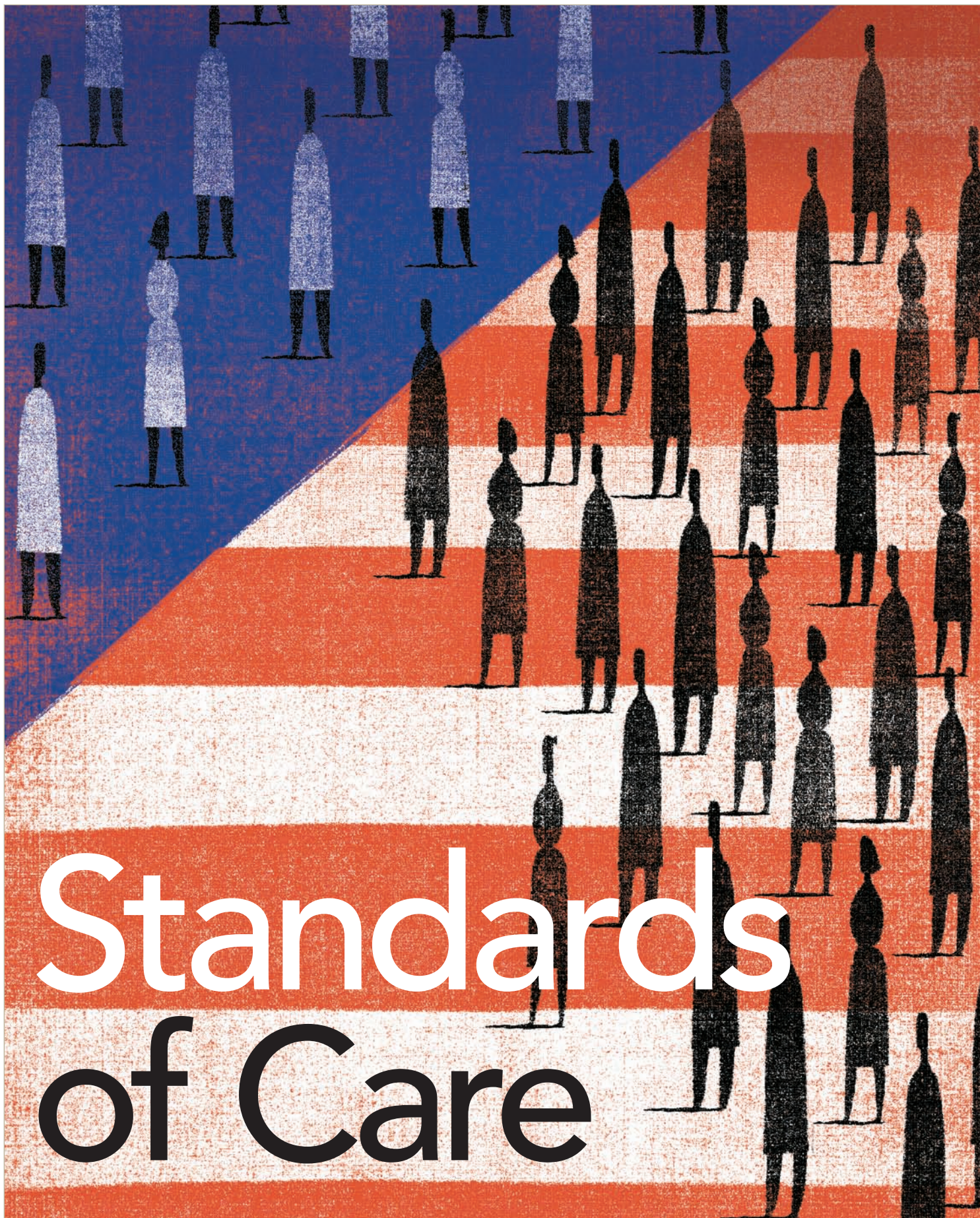
Sirey credits staff in Westchester County’s Department of Senior Programs and Services for identifying the community’s home-meal delivery program as a possible partner for depression screening. The program was already probing the nutritional status of prospective clients and what their needs might be in an emergency, so incorporating a screen for depression made sense. “Now in Westchester County as part of the home meal certification, in addition to the holistic assessment you are screened for depression,” says Sirey. “It’s not unusual for a screen-

ing to lead to recommendations for home meals, heating assistance, and mental health services.”

The bundling of such services has also decreased the stigma associated with mental health diagnoses and treatments in the community. “When someone tells them they may be suffering from depression, older individuals may worry profoundly about stigma, shame, cost, and what kind of toll this treatment will take on their independence and capacity to take care of themselves,” she says. “The only real way to improve the delivery of care for older adults with depression—and probably any kind of mental health problems—is to integrate mental health into community-based settings.” ●

Dimitris Kiosses, PhD





Standards of Care

JIM FRAZIER

As patients and medical professionals ponder how the system will change under the 2010 health-care law, Weill Cornell experts weigh in on three aspects of the legislation that—while largely unknown to the public—could offer the biggest gains

By Andrea Crawford

When Congress passed the Patient Protection and Affordable Care Act in March 2010, much of the public's attention focused on the bill's provisions to reform insurance, such as the new rules to ensure coverage for consumers with pre-existing conditions and prohibit lifetime benefit caps. But a large part of the legislation, receiving almost no notice in the mass media, concerned delivery system reform—the effort to improve the way medical practitioners and hospitals provide care.

Lawrence Casalino, MD, PhD, chief of the Division of Outcomes and Effectiveness Research and the Livingston Farrand Associate Professor of Public Health, calls the inclusion of those reforms “quite amazing.” Says Casalino: “The Administration and, for the first time, many members of Congress seemed to realize that if the delivery system isn't changed so that it uses money more effectively to improve people's health, then putting more money into the health-care system will be like pouring water into a sieve.”

Among the efforts given new emphasis by the legislation are accountable care organizations, comparative effectiveness research, and health information technology. These areas lie “at the interface between public health and clinical medicine,” says Alvin Mushlin, MD, chair of the Department of Public Health and the Nanette Laitman Distinguished Professor of Public Health. “They're critically important for health-care reform,” he says, “and they're key determinants of whether it is going to be successful.”

Accountable Care Organizations

It's a familiar scenario: an elderly woman who takes multiple medications for chronic congestive heart failure, coronary artery disease, atrial fibrillation, Type II diabetes, and depression gains ten pounds in six days, begins to have trouble breathing, and goes to the emergency department. She is admitted to the hospital. During her hospitalization, her physicians add some medications, stop others, and change the dose of some medications that the patient is already taking. The patient is discharged to home, but doesn't really understand her new drug regimen. Five days later, she is back in the hospital having suffered a stroke, a result of not taking the proper dose of anticoagulants and/or of drugs that interact with her anticoagulant medication.

Certain actions might have prevented the readmission: for example, a nurse care manager or pharmacist could have stayed in touch with this high-risk patient to help ensure that she took her drugs correctly, or the hospital could have promptly communicated her discharge information to her primary care physician, so the physician could provide prompt follow-up care. But the current system does



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Lawrence Casalino, MD, PhD

not compensate health-care providers for taking such actions.

Many experts believe that a solution—and a key strategy for controlling entitlement program costs by preventing unnecessary hospitalizations—lies in accountable care organizations (ACOs). In seeking to link quality outcomes to Medicare payments, the Affordable Care Act established a Center for Medicare and Medicaid Innovation, which provides \$10 billion over the next ten years to foster innovation in payment and delivery. ACOs are at the top of the list. Beginning in 2012, as the legislation reads, ACOs “that take responsibility for cost and quality received by patients will receive a share of the saving they achieve for Medicare.”

An ACO is an organization that is willing to take responsibility for overall costs and quality of care for a population of patients—and has the size and scope necessary to do so. ACOs will be rewarded for providing higher quality care and for helping to lower the rate at which the costs of care for their patients are rising. To do this, an ACO will need significant knowledge of its patient population, so that it can provide preventive care with greater attention given to individuals at higher risk. It will need to offer care between office visits via phone consultations or other communication and help patients manage their own conditions. Organizations eligible under the current legislation include multispecialty group practices, networks of individual practices, hospitals and their employed physicians, and hospital-physician joint ventures.

An ACO’s goal is the holy grail of health policy: improving quality of care while controlling costs. “In the ideal sense, it would be a way to get paid for doing the right thing for your patients, which you’re not really paid for now,” says Casalino, an expert on organizational practices and the ways in which physicians’ practices can be structured to enhance quality and efficiency. Physicians would be

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rewarded for doing work that occurs outside of visits, such as talking to patients on the phone, consulting with other specialists, and coordinating with a nurse care manager. ACOs would provide greater administrative support for such care and offer incentives for hospitals and physicians to collaborate and communicate. For primary care physicians trying to organize into patient-centered medical homes—an approach to care that facilitates partnerships between patients and physicians for comprehensive care coordinated across the health-care system—ACOs would serve as so-called medical neighborhoods. “Right now you can be a medical home, and that’s great,” Casalino says. “But specialists in hospitals don’t have any financial incentive to cooperate with you.”

While the ACO idea has generated much excitement—with most hospitals and large medical groups around the country now giving it serious consideration—Casalino says it’s not a slam dunk. “It remains to be seen if this concept is ever going to come to fruition,” he says, “so it’s hard to know if five years from now the United States will be studded with ACOs or if people are going to say that this was another great idea that came to nothing.”

One challenge is that any group or hospital attempting to become an ACO would need to undergo a fundamental overhaul. Operationally and culturally, major obstacles stand in the way. “There’s no question that the system is set up to produce as much billing as possible, so it’s a big deal to change from that and to invest in organized processes to improve care for a population of patients for whom you’re responsible,” Casalino says. “For any organization, it’s going to take significant culture change, financial and time investment, and really good leadership.”

Another challenge may be the way the legislation is written, in that it may not offer incentives that are large enough in scope to encourage this level of change, particularly since it is not clear that health-insurance companies will support the ACO concept. It is hard to alter an organization’s culture to address the care of a portion of its patient population—only its Medicare or Medicaid patients, for example. It may be, Casalino says, that the incentives in the existing legislation are not strong enough to convince most organizations that the changes required for success are worth attempting.

Nevertheless, the idea remains appealing. “If we could magically wave a wand and everyone could be in a high-functioning ACO, I think most physicians would find that that it works well for their patients and for themselves,” Casalino concludes. “They could deliver better care for their patients, they wouldn’t have as many administrative hassles as they have now, and as long as their incomes were not particularly decreased, I think they could feel happy knowing they’re having better work days and doing better things. That’s the ideal.”

Comparative Effectiveness Research

The fiscal challenges facing health care are well understood: rising drug and medical technology costs, federal and state budget deficits, and the demographic shift of Baby Boomers aging into Medicare. But the 2010 legislation raises the stakes. “The impact of the legislation is that more people will have health insurance,” which could both increase pressure on insurance companies to cut costs in order to keep premiums affordable and give them more leverage in deci-

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Bruce Schackman, PhD



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‘It feels insufficient to make existing paper-based systems electronic without ensuring that those systems actually communicate.’

Rainu Kaushal, MD, MPH



sion-making about what will be covered, says Bruce Schackman, PhD, chief of the Division of Health Policy in the Department of Public Health.

The challenge for policymakers, then, is to ensure that these market forces do not dictate medical practice—that physicians and patients rather than insurance providers or Medicare officials can make decisions regarding appropriate medical treatment without excessively driving up costs. To address these concerns—and avoid repeating the classic struggles of managed care—the reform legislation calls for the establishment of the Patient-Centered Outcomes Research Institute (PCORI). A nonprofit independent of the government, it opened last fall to promote and fund comparative effectiveness research (CER). The emphasis on CER, says Schackman, is intended to help ensure the delivery of quality health care based on evidence.

When public health researchers use the term “evidence-based medicine,” it can prompt laypeople to wonder just what part of medical practice *isn’t* based on evidence. But clinicians know how little of what they have traditionally done has been based on scientific proof about which treatment or test works best. In CER, researchers study the effectiveness and benefits of existing modalities such as drugs, diagnostic tests, medical devices, surgeries, and care processes. The goal is to inform providers about what is effective and efficient, and whether one treatment or procedure is better than another. Largely, researchers compare approaches or technologies already approved by the FDA to learn which works better in clinical practice with a broad range of patients. Researchers conduct such investigations either by synthesizing evidence from existing clinical trials and observational studies or by generating new data. “You can’t run a clinical trial for everything—we could never afford it,” says Schackman. “And clinical trials often don’t answer the questions that we want to answer about actual practices.”

Hassan Ghomrawi, PhD, a researcher in the Division of Health Policy, recently co-wrote a paper with Mushlin published in the *New England Journal of Medicine* that made the case for CER as a key factor in preventing health care from being “driven solely by financial and regulatory incentives.” His current research focuses on the outcomes of various orthopaedic surgical devices. Working with colleagues at Hospital for Special Surgery, Ghomrawi, Mushlin, and other Department of Public Health researchers have collaborated on building a database of 20,000 patients who have undergone total joint replacement in order to evaluate which devices are associated with the best outcomes and fewest surgical complications such as infections or dislocations. Ghomrawi’s focus on analyses of observational data is a hallmark of CER—using methods that, for example, adjust for the fact that patients have not been randomly assigned to one surgery or another.

With total joint replacement—an expensive and often elective surgical procedure—rapidly increasing in use, Ghomrawi’s research seeks to address whether patients are receiving the right procedures and how their expectations can affect outcomes. Other researchers in the Division of Health Policy are evaluating processes to improve depression treatment for the elderly in primary care settings, the cost-effectiveness of substance abuse therapies, and treatment strategies for patients with HIV. “We address clinical questions that have policy implications with regard to the fact that we have a constrained amount of resources,” Schackman says. “So how do we use those resources most effectively and efficiently?”

Some physicians have expressed concern that CER could do more harm than good, questioning the robustness and validity of research methods or fearing that results may not be used appropri-

ately in government or insurance decision-making about coverage. But Mushlin insists that physicians as well as patients have a lot to gain. "It's basically the first line and the most logical defense that physicians have against blind cost containment in health-care reform," he says. "Comparative effectiveness research should provide arguments to retain expensive but valuable technologies. And it should provide insights for physicians to lead the effort to intelligently reduce costs."

Health Information Technology

What if a local bank installed an automatic teller machine that was not connected to any other institutions? It would have its uses—customers could retrieve cash when the branch was closed, for example—but it would not offer the more significant benefits of accessing account information or withdrawing money from banks around the world.

That's the analogy used by Rainu Kaushal, MD, MPH, director of Pediatric Quality and Safety for the Komansky Center for Children's Health at NYP/Weill Cornell, to explain the current debate over electronic health records. As her ATM scenario demonstrates, upgrading one physician's office from paper to electronic records will do little if all the systems—in doctors' offices, hospitals, pharmacies, nursing homes, and insurance providers—are not connected. "It feels insufficient to make existing paper-based systems electronic without insuring that those systems actually communicate," says Kaushal, who in 2007 became the first chief of Weill Cornell's Division of Quality and Medical Informatics, one of the few groups in the country focused on the intersection of informatics and health services research. "Health information technology is being viewed as a cornerstone of health-care reform," she says, "because IT can transform the way we're delivering care—through entities like the medical home model and ACOs—and because it's impossible to do those types of things without having electronic health records."

New York State has been a leader in health information technology. In 2005, it announced a significant investment (now at \$840 million) to implement technology that is interoperable—in other words, to build systems that communicate with one another. More recently, the federal stimulus act of 2009 invested about \$30 billion in health information technology; its program offered incentives that, in four years, convert to penalties for noncompliance. After the creation of the state program, Kaushal founded the Health Information Technology Evaluation Collaborative of New York State (HITEC)—a consortium including Columbia, SUNY Albany, the University of Rochester, and faculty collaborators at SUNY Buffalo—to evaluate the state's initiative. The effort gives New York an opportunity to influence national trends. "We are funded by the state to try to understand the value of this investment from a variety of perspectives: clinical quality, patient safety, economic considerations, patient concerns," says Kaushal, who is executive director of HITEC. "This is exceedingly important because nationally we're embarking on an extensive and expensive push to adopt interoperable electronic health records with very little concrete evidence about the financial savings."

The public debate about health information exchange, she says,



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"goes something like this: Should one put ATMs in every bank and then connect them, or develop the connections and then install the ATMs? Or try to do both simultaneously?" So far, New York has led with the connections. HITEC has demonstrated the successes of New York's model, whose numbers, Kaushal says, "are already fairly impressive": 8 percent of state residents have consented to interoperable health information exchange, and 8 percent of ambulatory care providers are actively using it.

In addition, researchers have begun to study the value of electronic health records in a community setting. "We've been able to demonstrate that with electronic health records you can push forward quality of care and drive down costs," Kaushal says. "That's critical, because evidence about quality and cost in ambulatory community-based settings is currently not as definitive as one would like, and the nation is embarking on such a significant financial investment."

Health information technology has other benefits. For example, it has the potential to make health care more patient-centric, enhancing physician-patient relationships and encouraging collaborative decision-making. Increasingly, medical organizations, health plans, and companies such as Google and Microsoft are offering products that allow patients to maintain records of their own care or to communicate electronically with their physicians. "There is not yet one dominant model for those systems, and there is some appropriate consumer wariness about these products due to concerns about privacy and security," Kaushal says. Some of her current work involves conducting usability analyses to understand what consumers want, how to ensure privacy, and how to make communications between patients and physicians quicker and easier. "Ultimately, the goal is to improve the delivery of health care to individual patients and to the population at large," Kaushal says. "Health information technology and interoperable health records are going to play an important role." ●

Notebook

News of Medical
College and Graduate
School Alumni

Dear fellow alumni:

I've been quite busy since my last report, working hard to further the interests of the WCMC Alumni Association. At the beginning of this year, I had the pleasure of attending the joint meeting of the Board of Overseers of Weill Cornell and the Board of Trustees of Cornell University. Both President Skorton and Dean Gotto were present for the daylong agenda. Several presentations concentrated on intercampus collaborative research projects; the translational research being performed here is truly awe inspiring, and as an alumnus I am thrilled that the gap between Ithaca and New York City continues to shrink.

Earlier this year, I also attended the Greater Metropolitan Medical Alumni Council (GMMAC) meeting, which brings together officers of peer medical college alumni associations in the tri-state area. GMMAC offers insight into how other organizations serve their constituencies—and how we, the officers of the WCMC Alumni Association, can better serve you.

The Alumni Association's Board of Directors continues to meet quarterly. I'm happy to report that we have funded several student initiatives, including the Movement Against Childhood Obesity (MAChO), a program that emphasizes nutritional and physical health in the city's underserved areas, and Camp Phoenix, which offers activities to help heal the emotional scars of pediatric burn patients. We were also thrilled to sponsor the students' annual December Decadence party.

In January, we held the annual Rogosin Institute Scholars Reception honoring the four Rogosin Institute Scholars and the Albert Rubin, MD '50 Scholar. These five energetic students from the Classes of 2013 and 2014 have impressive resumes that include international medicine, stem cell and translational research, and community work in childhood obesity. We are grateful to the Rogosin Institute for its continued and generous support of the Medical College that has made these scholarships possible.

In February, Lewis Drusin, MD '64, and I were pleased to host a dinner in San Diego to coincide with the American Academy of Orthopaedic Surgeons Annual Meeting. I met with attendees, both local alumni and visiting orthopaedic surgeons, to discuss current affairs at the Medical College and update them on our *Discoveries that Make a Difference* campaign. Several attendees were eager to contribute, particularly since raising funds for scholarships is a priority area. Thanks to their and your support, Weill Cornell has bucked the national trend of ever-increasing medical student debt. The debt is still staggering, though, and your support for your alma mater is needed now more than ever.

As a final note, I am happy to announce that Clara Cullen has been named our new Director of Alumni Relations and Giving. Her energy and organizational skills have reinvigorated the Alumni Association. She and I look forward to working together to help you continue your lifelong relationship with Weill Cornell.

Please continue to follow our activities on our website, Twitter, and Facebook. We have many events planned across the nation this year, so be on the lookout for mailings in the upcoming months.

*Best and warmest wishes,
Michael Alexiades, MD '83
President, WCMC Alumni Association
alexiadessm@hss.edu*

PROVIDED



Michael Alexiades, MD '83

1940s

Burritt S. Lacy, MD '44: "After interning at NYH and two years of Army service, post-VJ Day, I came to Topeka, KS, for psychiatric residency and was on the State Hospital staff for eight years. Since then, Manhattan, KS, has been home, with practice in the local mental health center, about ten years of private practice, and finally as Kansas State Student Health psychiatrist until retirement 16 years ago. Now 91, I'm still enjoying life, thanks to reasonably good health, occupied with supporting progressive religion and political activism, where more and more a fair and nurturing society seems to be accepted as the necessary foundation for the healthy development of children. I'm a longtime proponent of single-payer national health insurance and happy to be with the majority of physicians, as well as to have excellent medical care for my 83-year-old wife and myself and to be able to remain in our 100-plus-year-old house. Greetings to my surviving 1944 classmates."

Allen Worrall, MD '48: "On February 28, 2011, I retired from the practice of medicine and moved from Fairbanks, AK, to Lakewood, WA."

1950s

Charles A. deProsse '46, MD '50: "Still enjoying retirement after 15 years. Carol and I gave up our country acreage 18 months ago and downsized to a ranch home in Iowa City with our three dachshunds and three cats. We recently spent ten lovely days in Placencia, Belize, and would recommend it to anyone looking for a winter getaway. We are very much looking forward to the return of spring in Iowa."

William Craver '49, MD '52: "I now live in a nice retirement home in Canandaigua, NY ("the chosen spot"). I retired a total of seven times, most recently from my thoracic surgical practice in June 1997. Time is spent visiting my six children and 13 grandchildren, watercolor painting, exercising, and playing a nine-hole golf course (when it's not snowing or raining). I have had no contacts with classmates for many years. My best to all surviving members."

Russel Patterson, MD '52: "Julie and I are in good shape (except for stiff joints, poor balance, and mild dementia). We live in Manhattan, but go to Vermont frequently and travel quite a lot, mostly to see grandchildren. Our daughter is now head of the physics department at Cornell, the next son is deep into entrepreneurial computer matters in Silicon Valley, and the youngest is in Portland, OR, doing Oregonian-type things. We still go to several neurological meetings a year. I'm historian for the Society of Neurological

Surgeons, which is fun and somewhat time consuming (that's good)."

Robert S. Grayson '50, MD '53: "I recently closed my office in New York, but opened one in New Jersey. For a brief time, I was 'retired,' but I soon realized how important it is to me to see patients. Hence, I have started a practice here for psychiatry and psychodynamic psychotherapy. I will also be available for consultations and private supervision. I can be reached at: rsgayson@att.net. I continue to teach interviewing techniques to Weill Cornell medical students. I also give a course, Ethics in Psychoanalytic Practice, at the New York Psychoanalytic Institute."

Bernard Yablin '48, MD '53: "My 17-year-old, Dorian, will start at SUNY Plattsburgh this fall to study environmental preservation and conservation and may go to Kenya this summer with her youth group. Her older sister, Adrian, is finishing her third year at RIT."

Forrest T. Tutor, MD '55: "My wife and I enjoyed the 2010 Reunion. We had a special visit on the way home with good friends Jan and Roland Richmond, MD '55, in Louisville, KY, who weren't able to attend. I'm working on another book, my memoir entitled 'Thanks for the Memories,' in which Cornell Medical College has a major part. We have finally got our antebellum home, Lochinvar, restored after the tornado of 2001 nearly destroyed her. My wife, Janis, just got back from her fourth Operation Smile mission in eight months. This one was to Nakuru, Kenya, in which she operated on 25 children with cleft lip and palate."

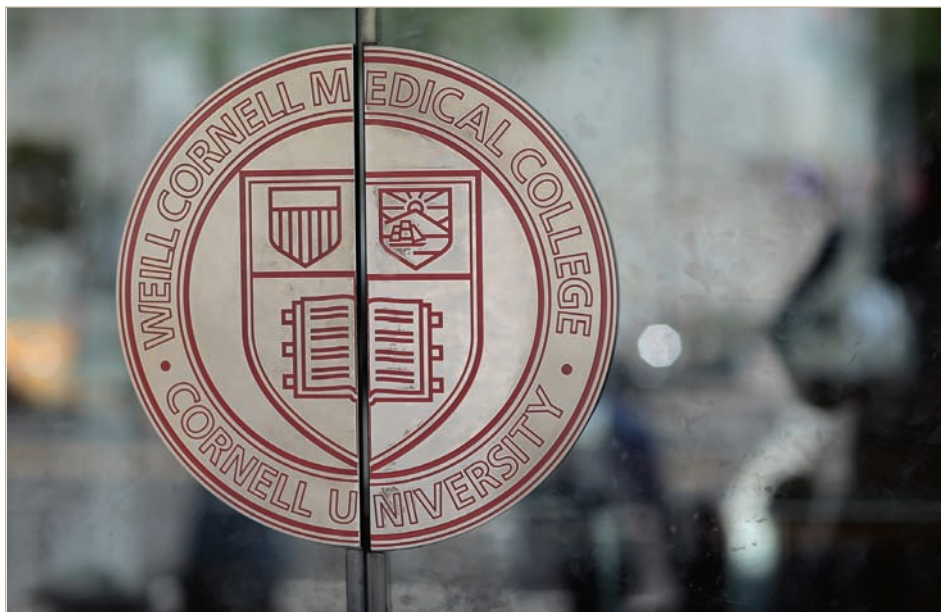
Artemis Pazianos Willis, MD '55: "I had a wonderful trip last October to Cyprus and Jordan. Both visits were incredible. I felt I had to see Petra, and I also visited Jerrash, a wonderful archaeological site much like Pompeii in that it was buried under sand for centuries. Jordan is certainly not the place to visit at the moment. I am truly enjoying my retirement and have a trip planned to Germany and Paris this summer."

Jim Mason, MD '56: "I think there were about six couples in the Class of 1956 who were married when we started medical school. At our graduation, Dean Hugh Luckey presented each wife with a 'Goodwife' diploma for her support; ours still has a prominent place in the laundry room. We lived at 410 East 65th St. between York and First Ave., and the first of our five children was born at New York Hospital. Most of our married friends lived at Ma Friedman's down around 83rd St. We have been married 60 years and enjoy 'the golden years.' "

Kathryn Ehlers, MD '57: "A mini-reunion of some Class of 1957 Florida Gulf Coast inhabitants and spouses was held on Sanibel Island,

'For a brief time, I was "retired," but I soon realized how important it is to me to see patients.'

Robert S. Grayson '50, MD '53



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the home of **Jack Madaras, MD '57**, and **Bruce Boselli '54, MD '57**. They were joined by **Gene Renzi '53, MD '57**, from Sarasota, and **Kay Ehlers, MD '57**, from Naples. All are looking forward to our 55th Reunion in October 2012."

Robert E. Hardy, MD '57: "Hello, especially to my Class of 1957. I am still practicing ob/gyn part-time in Sidney, MT. After many years in Greenwich, CT, I thought I would retire in western Montana, but I got a call to help out a practitioner in the small town of Sidney. That was 11 years ago. I love the work and the interaction with the patients, and I just can't seem to 'cut the cord.' I'd love to hear from any of my classmates or anyone who knew me. I can be reached at BobJan.Hardy@gmail.com."

Theodore Shapiro, MD '57: "I have been quasi-retired from my post as vice chair of psychiatry for child and adolescent psychiatry at WCMC since 2002, but have stayed on thanks to the largess of department chair Jack Barchas as a DeWitt Wallace Senior Scholar. I continue to teach, do research (currently co-PI on a manualized study of dynamic psychotherapy for anxious children), direct the Sackler Program on Infant Psychiatry, and practice at the Medical Center. I miss seeing many of my classmates and long-gone teachers at Griffis, but I do enjoy seeing many of my fellow faculty at lunch there. My wife of 56 years, Joan (we married after two years in med school), also continues her work as an educator; together, we raised two children, and they, five grandchildren. We are fortunate that they are all

in the New York area."

Bernie Siegel, MD '57: "I was selected as one of the 100 Most Spiritually Influential Living People by the *Watkins Review*, which is published by Watkins Books, an esoteric bookshop in the heart of London, England. Quite an honor, and quite a gift to touch so many lives. I'm living near New Haven, CT, and still running empowering support groups for cancer patients, though I am retired from active surgical practice. I am finding my work is more accepted as we do research into emotions and their effect on immune function and more, and can see that there is survival behavior and things to be learned from our patients who don't die when they are supposed to. My most recent book is *Faith, Hope & Healing: Inspiring Lessons From People Living with Cancer*."

George E. Shambaugh III, MD '58: "In a lifetime of teaching, our goal is to impart knowledge to the next generation. In the spring of 2010, I was inducted into fellowship in the American College of Endocrinology. The college fellowship medal was placed around my neck by one of my students from Northwestern, who had become a member of the board of the college. She came up to the podium from the audience, looked at me, and said quietly, 'It is a great honor for me to induct my former mentor.' In that simple statement, my life spent in academia was all made worthwhile. In the summer of 2010, my wife, Roberta, and I took my son and grandson on a journey to Southern Africa, where we visited five countries. We saw Soweto and the relocation settlements in Cape Town, along with progress since Nelson Mandela. We visited Victoria Falls and had several safaris, armed with camera and binoculars. We had an opportunity to pet young lions and to ride African elephants. I continue to teach at Emory University Medical School as a volunteer faculty member, which gives me control of my schedule, while at the same time keeps me active. I am slowly learning how to play bluegrass on a five-string banjo. We have a large home and welcome any of you who come this way."

1960s

George Burkholder, MD '60: "Reunion last year was a great experience—thanks to Weill Cornell and the class planners for making it run so smoothly. I am retired, but filled in during spring break at Urology San Antonio. In June, Gretchen and I are taking our 15-1/2-year-old granddaughter on a medical mission to El Salvador. I finished sculpting 'Wide Receiver Catching Ball in

We want to hear from you!

Keep in touch with
your classmates.

Send your news to Chris Furst:
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Dead Run,' while 'Pillow Talk' and 'African Elephant' are in various stages of sculpture. Life is full and sweet."

H. Clay Alexander, MD '61: "I have been retired in Southern California for ten years, volunteering for hospice, teaching English (my major at Yale), and serving on the board of trustees for the Oceanside Museum of Art. My first novel is currently with an agent in New York, who has just started looking for a publisher—no mean feat in today's literary climate. My three sons all have children whom I visit in Dallas, San Francisco, and Charlotte. I am grateful for each day."

William Drake, MD '61: "I still practice at one small hospital. My wife, Kay, died this February at age 72."

Bill Chaffee, MD '62: "It doesn't seem possible that I have been retired for 12 years—forced out early by managed care. Since retirement I have taken up photography and have combined this hobby with travel, and have taken a special interest in Southeast Asia. Grace and I are going to Bali for the eighth time this June. I'm looking forward to our 50th Reunion next year."

Jack Gundy, MD '62: "I've been writing poems in my retirement in Corinth, VT. I volunteered in Haiti last year, providing pediatric primary care alongside recently graduated Haitian doctors and struggling to communicate in Creole. I had visited Limbe's Good Samaritan Hospital as a second-year medical student in 1960, setting up Ben Kean's thick smear method for detecting falciparum malaria, still in use today. We (Zeb, Barnie, and I) were told by the dean's office at the time that we would be experiencing third-rate medicine—how times have changed."

Nicholas L. Tilney, MD '62: "My new book, *Invasion of the Body: Revolutions in Surgery*, will be published by Harvard University Press in November 2011."

Francis Bohan, MD '63: "In January 2009 I was diagnosed with a non-operable brain tumor. Subsequently, they found the primary in my left upper lobe; it was seen only on a CT scan. I am currently in remission after having gone through chemotherapy and Gamma Knife treatment. I am on Tarceva and prednisone. I am not able to talk clearly and at times I am quite scrambled due to the cerebral metastases and the tumor of my left vocal cord. Can do e-mail as it tends to correct itself. Always glad to hear from my fellow Cornellians."

John W. McIvor '59, MD '63: "I retired from the practice of interventional radiology in Long Island, NY, on April 4, 2011."

Donald Catino, MD '64: "I am having more fun than ever practicing medicine and teaching medicine internationally. My wife, who is a nurse, and I spend several weeks each fall at Weill-Bugando Medical College and Medical Centre in Mwanza, Tanzania, teaching medicine at the bedside. The medicine is exotic and fascinating, and the disease burden is overwhelming. The students and house staff are bright, energetic, and eager to learn. We then move to New Zealand or Australia for our winter, their summer. The medicine and the students are excellent, and the people, lifestyle, and country are beautiful. We then come home for our summer, when I work on Cape Cod or on an Indian reservation. My wife participates in all of this and is having a wonderful time. Life is good. If anyone in the class is interested in this kind of semi-retirement, please contact me."

Anne Gershon, MD '64, was selected as this year's Weill Cornell Medical College Alumni Association Distinguished Alumna.

Frances J. Storrs, MD '64: "I retired on 1/1/11 as professor of dermatology at Oregon Health and Science University, though I still have a medical school office (and parking place), attend weekly conferences, and do some teaching. I also staff occasional clinics dealing with contact dermatitis (my specialty). I was greatly flattered by two days of retirement festivities with colleagues arriving from all over the US, Canada, Denmark, and the Philippines. There was a reception, scientific session, and a big gala dinner roast. Intimidating and humbling. An endowment has been established in my name, and our third speaker on medical ethical issues will come this fall. Back into civic activities, gardening, and some classes. Lots of family in Portland and enjoy grandchildren's activities, especially family gatherings, ball games, and dance events. Took my 13-year-old granddaughter on a Kenyan safari in January. Wonderful! I welcome visitors."

Lawrence P. Levitt, MD '65, at the invitation of Dean Gotto, presented a copy of his recently published book, *Uncommon Wisdom: True Tales of What Our Lives as Doctors Have Taught Us About Love, Faith, and Healing*, to the second-year students in Weill Auditorium. He told several stories from the book, about events that had

changed his life in medicine and from which he learned life lessons.

John Witwer, MD '66: "After retiring from the active practice of medicine, I ran for political office, served in the Colorado State Legislature, and currently teach physician assistants at a local college."

Yale L. Fisher '64, MD '67: "I started a new educational website for Ophthalmic Contact B-Scan Ultrasonography. The site is interactive and provides a series of basic lectures followed by real-time movie segments of classic diagnoses in Ocular B-Scan. Both the lectures and video library are free. So far, world penetration has involved 124 countries, more than 2,400 cities, and 64 languages. I plan to expand the site this year to involve all of ocular imaging for retinal disease. It took 14 years of planning but only six months to put everything together. It has been fun."

Steve Pieczenik '64, MD '68, founded NBI Pharmaceuticals with his partner, Dr. John Neustadt. The company focuses on developing drugs for the orphan drug space based on natural products. To date NBI Pharmaceuticals has received seven orphan drug designations from the FDA. Five are in oncology, one is a seizure disorder, and one is a mitochondrial disease. NBI Pharmaceuticals has three additional applications under review by the FDA in the areas of oncology and mitochondrial disease. In the first six months of its existence, the company received seven approvals, and earned \$11.2 million in fees. Based in Montana, NBI Pharmaceuticals is currently being evaluated by investment bankers and strategic pharmaceutical partners.

N. Reed Dunnick, MD '69: "I am completing my 19th year as chair of radiology at the University of Michigan. This year I was awarded honorary membership in the American Society of Radiation Oncology. I occasionally see Cornell classmates **Ed Sickles, Ken Peelle, George Gross, Fred Wolfe,** and **Barbara Cox Koehler** (all MD '69) at radiology meetings."

1970s

Bill Goodhue, MD '70, is retiring after ten years as acting chief medical examiner, City & County of Honolulu, on September 1, 2011. His jurisdiction included 1.2 million people, and his department is one of the few eligible agencies to have been continuously accredited by the National

'Actually, it turns out, when you don't have to worry about the money, seeing patients is loads of fun.'

Neil Ravin, MD '73

Association of Medical Examiners. Immediately before joining the Medical Examiner Department in 2001, Bill retired as a full colonel after a 30-year active duty career as an Army pathologist. He enjoys living in paradise: Hawaii.

Eric Thomas, MD '70: "Both work and life are going strong. I am about to expand my electronic management system to include patient records and am also planning to go back to basics and reintroduce superficial X-ray therapy for non-melanoma skin cancer back into my practice. I love gadgets. On a personal note, all is fine. I wish one and all every blessing and happiness."

Frank Bia, MD '71, now emeritus at Yale, enters his fifth year as medical director of AmeriCares, the humanitarian and disaster relief organization, now very much involved in recovery efforts for both Haiti and Japan. **Peggy Bia, MD '72,** continues as a professor at Yale Medical School, director of the clinical skills program, and as faculty in the transplant nephrology program. Jesse, age 24, is a graduate student in anthropology at Oxford, and Joshua, 22, is about to enter his senior year at Tulane. The Bias look forward to the 40th Reunion—"Can it actually be true?"

Jeffrey J. Eckardt, MD '71, was named chairman, Department of Orthopaedic Surgery, David Geffen School of Medicine at UCLA.

Greg LaGana, MD '71, and **Barry Levy, MD '71:** *Damaged Care: The Musical Comedy About Health Care in America*, written and performed by Greg LaGana and Barry Levy, is now in its 16th year. Greg and Barry first performed the show at their 25th Reunion in 1996 and since have performed it 121 times in 27 states. They have been featured in the *New York Times* and the *Boston*

Globe, on CNN Headline News and ABC's "Nightline," and elsewhere. More information is available at www.damagedcare.com.

James L. Bernat, MD '73, is a professor of neurology and medicine at Dartmouth Medical School and Dartmouth-Hitchcock Medical Center. In February 2011, he was named the Louis and Ruth Frank Professor of Neuroscience at Dartmouth Medical School. In April 2011, he received the President's Award from the American Academy of Neurology for lifetime contributions to American neurology. His most recent book, *Ethical Issues in Neurology*, 3rd ed., was published in 2008 by Lippincott Williams & Wilkins. He writes: "Judy and I have been at Dartmouth since graduation from CUMC. We are almost New Englanders after living here for 38 years. Our son and daughter are both married and live in Southern California."

Benjamin A. Lipsky, MD '73, has again served as chairman of guidelines committees on diabetic foot infections for both the Infectious Diseases Society of America (IDSA) and the International Working Group on the Diabetic Foot (IWGDF). The revisions of these widely read guidelines (the IDSA are downloaded thousands of times a month and the IWGDF set has been translated into more than 20 languages) are due to be published later this year. On a personal note, he celebrated the graduation of his younger daughter, Rebekah, from the master's degree program at Johns Hopkins School for Advanced International Studies and especially welcomes her now being employed (as an associate at McKinsey and Co.). With her older sister, Rachel, having completed dual master's degrees at the University of Washington last year and now working in management at the US Forest Service, "the 'Bank of Dad' is closed."

Jay Midwall, MD '73: "I was delighted to attend a dinner sponsored by Dean Gotto in New Orleans at the time of the American College of Cardiology annual meeting. Many of you know I am an interventional cardiologist practicing in Florida. I was accompanied by my wife, Linda, and our youngest son, a third-year cardiology fellow, who presented an abstract. He will be an interventional cardiology fellow at NewYork-Presbyterian Hospital in July. Our oldest is an attorney doing mostly medical malpractice defense in Miami. Our daughter is married, lives in Connecticut, and is a stay-at-home mom. I would love to hear from my classmates. My cell is 561-251-5400."

Neil Ravin, MD '73: "I'm now a full-time employee and getting a W-2 form and loving it. When the photocopier breaks, it's not my problem. Actually, it turns out, when you don't have

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to worry about the money, seeing patients is loads of fun. So is the New Hampshire seacoast, where people actually surf year 'round, insane as that may be. (I may be tempted.) I have managed to keep my wife, Claudia, shackled to the desk and earning big bucks telecommuting to her job in Washington, DC. Claudia is Cornell School of Nursing '77; she develops programs for a nurse's association. Both kids live in NYC, so we get in periodically. One is in med school (P&S), and the other is smart enough to be a jazz musician and not starving."

Milagros Gonzalez, MD '75: "I attended 'Day at the Hospital,' sponsored by the South Mountain Community College Medical Scrub Club in Phoenix, AZ, in April. As part of a panel of medical professionals, I participated in an afternoon of sharing insights into building a profitable and rewarding future career in medicine with potential medical professionals. Doing well and still practicing pediatrics in the Valley of the Sun."

Robert A. Linden '71, MD '75, writes that his book, *The Rise & 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, 2010), has garnered two national awards. The first was winning in the Current Events category in the 2010 Next Generation Indie Book Awards, presented by the Independent Book Publishing Professionals Group; the second citation was as a finalist in the Best New Non-Fiction Category of the National "Best Books 2010" Awards, sponsored by USA Book News. (The book was featured in the Summer 2010 edition of *Weill Cornell Medicine*.) On other fronts, Dr. Linden writes, "My wife, Caren, and I are midway through our house-building project in the US Virgin Islands. Constructing something on St. John has been both an interesting and illuminating, if not prolonged, experience. We plan to partake in the villa off-season when it is really quiet there, renting it the remainder of the year. Finally, it was fun seeing everybody at the last reunion. A special thanks to Ginny and **Paul Pellicci, MD '75,** for their hospitality, putting us up in their NYC flat for the weekend."

Paul Miskovitz, MD '75, is a clinical professor of medicine at WCMC; he and his wife, Leslie, still live in northern New Jersey. Their 2-year-old grandson, Caden, son Steve, and daughter-in-law Gabrielle live in Manhattan, as do daughter Sharyn, MD '06,

and son-in-law Seth. The entire group recently undertook a family vacation/reunion in Coronado, CA, enjoying beaches, the zoo, Balboa Park, and the warm weather along with Sharyn's Havanese dog, Maddie.

Joshua Nagin '71, MD '75, MBA '88: "I've 'pulled the plug' and decided to completely retire. I've been semi-retired for the past seven years, so it's more of a mental hurdle than a lifestyle change. Golf, travel, three grandchildren, and the daily chores of life, including trying to stay physically fit, are my new challenges. I feel very fortunate and send my best wishes to you all."

Howard Schenker '71, MD '75: "I'm still busy practicing ophthalmology in Rochester, NY. A large part of my work involves clinical research, mostly for glaucoma. Most of my spare time is taken up with bicycle racing. Arlene is busy with several volunteer programs. Son Andrew is a film critic in NYC, and daughter Emily is an ASL interpreter in D.C."

David Desrochers, MD '76: "I left the private practice of radiology ten years ago and work half-time for Dartmouth as a general radiologist. I am on site for the summers, and I read via telerad on the weekends the rest of the year. Our daughter and her husband are family physicians in Virginia, and our son and his wife are Annapolis graduates. They are officers and serving in Naval Air. We have three grandchildren."

William S. Packard, MD '76: "I am still working as a psychiatrist for Suffolk County on Long Island, where I am medical director of the mental health unit at Suffolk County Correctional Facility and Riverhead Mental Health Clinic. I recently became a fellow of the American Psychiatric Association, and in May I hope to finish a Master of Arts in Italian at SUNY Stony Brook. I still play the flute in a chamber music ensemble, and three years ago, in Massachusetts, I married my partner of 35 years, Charles Ihlenfeld, also a psychiatrist."

Vincent de Luise, MD '77: "I have had the pleasure of re-entering, in a small way, the world of WCMC. Through the efforts of our classmate **Carol Storey-Johnson, MD '77,** who is senior associate dean for education at WCMC, I am a member of the humanities in medicine committee of the

Medical Education Unit, chaired by Carol. The MEU is charged with identifying aspects of curricular reform for medical school education at the College, the results of which are being presented to the Medical Education Council and Dean Gotto. Carol's leadership and vision are evident in every aspect of this broad-based and interdisciplinary effort, which will integrate basic biomedical sciences with clinical experiences. It has been great to see Carol, as well as our mentor **Lew Drusin, MD '64,** in these activities."

John T. Devlin, MD '77: "Diane and I still enjoy life in Maine, and my career path continues to provide new challenges and opportunities. We're seeing positive results from our International Diabetes Federation-funded project, "Improving Diabetes Care in Cap Haitien, Haiti," and have recently reported on "Determinants of physical activity among Somali women living in Maine." As appropriate for our life stage, much of our enjoyment comes from watching our children's progress. Our daughter, Heather, finished her pediatrics residency at the University of New Mexico and will be joining the Dartmouth-Hitchcock Pediatrics practice in Manchester, NH, in July. We're excited to have her and her husband, John, within driving distance. Sean is finishing his doctorate in biostatistics this summer and has recently accepted a faculty position at Memorial Sloan-Kettering Cancer Center. It should provide an ideal opportunity to get back to New York and stay in touch with other alums."

Drucy Borowitz, MD '79, a clinical professor of pediatric pulmonology at the Women & Children's Hospital of Buffalo, gave a lecture on "Unraveling the Mystery Behind Cystic Fibrosis" to the Cornell Club of Greater Buffalo in early March. The club presented her with a distinguished alumna award at the event.

Paul Skudder, MD '79: "I have been living and working on Cape Cod for two years. Work here is understandably seasonal, with a lower population in the winter and less to be done. Life, however, is pleasant all year long, with the many amenities that a vacation or resort community can offer. I have spent winter weekends in the Adirondacks as a ski patroller at Gore Mountain for the past twenty years. My three kids are out of college and reasonably independent at this point. My wife,

Joanne, is doing well, and she loves living here. I have fairly regular contact with **Steve Werns '75, MD '79**, who is practicing cardiology in New Jersey, and less often with **Tom O'Dowd, MD '79** (orthopaedics, New Jersey), and **Bill Schickler, MD '79** (vascular surgery, Delaware)."

1980s

Brad Radwaner, MD '80, is medical director of the New York Center for the Prevention of Heart Disease in Manhattan and the proud father of four boys, ages 21, 20, 16, and 2-1/2.

Bruce Hirsch, MD '82, and **Susan Hirsch, MD '84**, continue to practice medicine at North Shore/LIJ Health System in Manhasset, NY. Their eldest son, Eric, 23, is a doctoral student in anthropology at the University of Chicago. Their next son, Zach, 20, is a junior at the University of Vermont, also in anthropology, and their youngest, Jake, 15, is a ninth-grader in Port Washington. They continue trying to convince someone, anyone, to go into medicine.

Robert Kalb, MD '82: "I'm mostly a basic science researcher on nervous system development and neurodegenerative diseases, specifically ALS. We work mostly with mice and *C. elegans*, and the work could be classified as molecular genetics. I am a clinically active neurologist and attend at the Philadelphia VA hospital. I'm in contact with **Mark Tramo, MD '82**; he is well and living in California. He hopes to make it as a rap artist. My activities include reading, piano, endurance sports, and dog walking."

Montgomery B. Douglas, MD '86: "I invite my classmates to our 25th Reunion. I live in Westchester and chair the Dept. of Family and Community Medicine at New York Medical College. I'm also the associate dean for diversity and inclusion there. Haven't sung on stage in ten years, but I'm hoping to resume that hobby this year."

Joseph J. Fins, MD '86: "I was just named the E. William Davis Jr., MD, Professor of Medical Ethics at Weill Cornell. The chair is named after **Bill Davis, MD '51**. There was a celebratory event on April 26."

Matthew Garfinkel, MD '86: "I am an orthopaedic surgeon, specializing in treating knee and shoulder problems, practicing in Edison, NJ. I have a terrific wife, Laurie, and three great teenagers. I am looking forward to the next reunion, which will be our 25th."

Christopher Plowe '82, MD '86, is a

Howard Hughes Medical Investigator and professor of medicine at the University of Maryland, where he leads the Center for Vaccine Development's Malaria Group and travels frequently to Mali, West Africa, and several Southeast Asian countries for field research. He was recently in New York to see "Prairie Home Companion" with his wife, Myaing Nyunt, a malariologist at Johns Hopkins, and felt nostalgic for the early Eighties in Manhattan. Son Jack is a sophomore at Sarah Lawrence College; Willie and Emily are both high school juniors and interested in colleges in New York City. Last summer Chris and Myaing rode their Harley-Davidsons from Maryland to South Dakota and back, stopping at the Minneapolis home of **Stephen England, MD '86**, and his wife, Suzanne, and daughter Olivia.

Walter Klein, MD '87: "My daughters and I are very much a Cornell family. Ali (Arts and Sciences, Class of 2010) is now working for an ad agency in Boston. Tori (Class of 2012) has volunteered time in Ithaca helping migrant workers obtain health care. Marissa (hopefully, Class of 2016) and I will be going to Haiti to do volunteer work at the Hospital Sacre Coeur. All of this happened because CUMC accepted me off the waitlist all those years ago. Speaking of all those years ago, I hope my classmates are planning to attend our 25th Reunion next year. It really would be great to see everyone."

Carol McIntosh '83, MD '87: "I have returned to the United States after working in Carriacou, Grenada, at Carriacou Health Services as the medical director from 2005 to 2010. I am presently relocating to Maryland and will be working in Fairfax, Virginia. I look forward to connecting with fellow alumnae in the Maryland, Virginia, and Washington, DC, areas. My practice is obstetrics and gynecology."

Susan C. Pannullo '83, MD '87, director of Neuro-Oncology and Neurological Radiosurgery at Weill Cornell Brain and Spine Center, will lead the Brain Tumor Walk on Governors Island on June 18, 2011. The 5K event is one of nine walks that will take place across the US this year to raise awareness and funds for brain tumor research. Volunteers from the Brain and Spine Center will walk in support of the \$1 million fundraising

goal. Dr. Pannullo is also the research chair for the National Brain Tumor Society. Over the past three years, the NBTS has funded more than \$10 million in brain cancer research. For more information about the walk, contact NYWalk @ braintumor.org or call 866-455-3214.

Alexander Babich, MD '88: "I've been busy tracking down old friends on the Internet and have found some going as far back as junior high. My wife and kids and I recently took a trip to Turkey with three friends from Rockefeller University and their families. A great reunion experience recommended to all. I also had the pleasure of running into another Cornell Med grad who was in the class a year ahead of mine and who I didn't know at Cornell. It's a small world. Professionally, the pathology practice I am with in St. Louis has expanded to an additional hospital and two surgery centers."

Roger V. Cappucci, MD '89, was elected president of the medical and dental staff at White Plains Hospital. He is a cardiologist with the Scarsdale Medical Group and has been associated with White Plains Hospital since 1995.

1990s

Daniel B. Jones '86, MD '90, was recently promoted to professor of surgery at Harvard Medical School and elected to the American Surgical Association. He is chief of Minimally Invasive Surgical Services at Beth Israel Deaconess Medical Center and co-editor of several books being released this year, including *Textbook of Simulation, Skills, and Team Training*; *Pocket Surgery*; *Mastery of Surgery*; and the *SAGES Manual of Quality, Outcomes, and Safety*.

Lawrence Lind, MD '90: "I have not made an alumni update in many years. Following Haverford, I wanted to take a year off before medical school and also wanted a big campus experience after the small campus of Haverford. So I worked as a volunteer on a Pima-Maricopa Indian reservation on the outskirts of Tempe, AZ, and lived the Arizona State college life while counseling alcoholic Indian children during the day. Ultimately I did have to get settled down, and I went to medical school. Now I have a subspecialty in urogynecology and pelvic reconstructive surgery. I run a division for women's incontinence in pelvic floor disorders in Long Island. I have a lovely wife, Lisa, and children Paige, 9, and Liam, 7. I love my specialty, which is a com-

bination of gynecology, urology, sexual dysfunction, and a nice balance of office and reparative surgery."

S. Robert Rozbruch, MD '90: "I started and lead the Limb Lengthening and Complex Reconstruction Service (LLCRS) at HSS. We treat adults and children with limb deformities, length discrepancy, and bone loss from infection or tumor. The clinical service is active and we train two fellows per year. Research and education are important to us, and we present and publish on a regular basis. I am an associate professor of clinical orthopaedic surgery at Weill Cornell Medical College. Check out www.hss.edu/limblengthening. In addition, I am active in our national organization and serve as the second vice president of the Limb Lengthening and Reconstruction Society. Family life is great. Yonina is involved with her artwork, Jason is a junior in high school and beginning the college application process, and Libby will be starting high school next year at Solomon Schechter School of Westchester."

Carolyn Eisen, MD '91: "I am currently a radiologist at NewYork-Presbyterian Hospital/Weill Cornell Medical Center specializing in breast imaging. My husband, **Mark Schwartz, MD '84**, a plastic surgeon, is also on staff at

NYP/Weill Cornell and in private practice in Manhattan. We have two daughters, Rebecca, 7, and Alexa, 5."

Abraham Leung, MD '91: "I am currently living in San Francisco. Since completing my residency at Columbia P&S and fellowship at MSKCC, I have moved my career from practice to industry, currently working for a biotech company called Nektar Therapeutics developing novel therapies to treat solid tumors. I would love to stay in touch. Contact info: 415-482-5513; abeleung@nektar.com."

Roderick K. King, MD '92, was selected as a Fulbright Nexus Scholar for 2011-12. He will spend up to one year on his proposed project, "Advancing Health in the Caribbean Through Leadership Development," a comprehensive assessment of the current public health leadership development training in the Caribbean. Dr. King will also receive the Health Champion award from the Whittier Street Health Center's Men's Health Collaborative at this year's Men's Health Summit on June 11 in Boston. The US Secretary of Health and Human Services recently appointed Dr. King to serve on the Advisory Committee on Minority Health, and the associate administrator of the Bureau of Primary Healthcare, Health Resources, and Services Administration appointed

'I've been busy tracking down old friends on the Internet and have found some going as far back as junior high.'

Alexander Babich, MD '88

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'I was selected as one of the chief residents in my anesthesiology program at Rush University Medical Center in 2011-12.'

Ali Farooki, MD '08

him as a senior advisor.

Jeff Kauffman, MD '93: "I am an orthopaedic surgeon and was in practice in Sacramento, CA, for the last ten years. Recently I moved back to New York and am now part of the Orthopaedic Associates of Dutchess County in Dutchess, NY. I moved with my wife and 3-year-old daughter to be closer to the rest of my family."

Maria C. Shiau '89, MD '93: "I completed my internal medicine internship at Lenox Hill Hospital, residency in diagnostic imaging at NYP/Weill Cornell, and thoracic imaging fellowship at Stanford. I am married and have a 14-year-old daughter. While working at NYU, I completed my master's in adult learning and leadership at Teacher's College at Columbia. This degree helped me to obtain a promotion to director of Medical Student Education in Radiology at the NYU Langone School of Medicine. I coordinate and oversee the integration of imaging into the entire medical student curriculum. I am 50 percent clinical and 50 percent academic. It is a wonderful job."

Chris Kreis, MD '97: "My health-care information technology company, ASP.MD Inc., specializing in Web-based practice management and electronic medical record solutions, enters its tenth year and achieves ONC-ATB meaningful use certification. See www.asp.md for more information."

Avram H. Mack, MD '98, was recently elected president of the Washington Psychiatric Society, the local branch of the American Psychiatric Association. He and his wife, Hallie Lightdale, are both academic psychiatrists at Georgetown

University Medical Center in Washington, DC, where they live with their three toddlers.

Alanna Coughlin Manning '95, MD '99: "I'm practicing pediatrics in the New Haven area, and we welcomed Sean Atticus Manning, born August 2010, who joined 3-year-old brother Patrick."

2000s

Jeffrey Liu, MD '03, and Kara Maxwell, MD-PhD '07: "Jeff finished residency in otolaryngology at NYP-Columbia/Weill Cornell and a fellowship in Head and Neck Cancer at Memorial Sloan-Kettering. He just started a new job at Temple University Hospital as an assistant professor of otolaryngology. Kara finished residency in internal medicine at NYP/Columbia and will be starting a medical oncology fellowship at the University of Pennsylvania this July. Along with their daughter Elena, Jeff and Kara welcomed their second child, Zachary, this past December. They are falling in love with Philadelphia and would love to hear from any classmates. Jeffrey can be contacted at jcl2006@gmail.com and Kara can be contacted at maxwelk@gmail.com."

Fred Roediger, MD '04, practices otolaryngology in Portland, ME. He and his wife, Martina, are proud parents of three boys whose hobbies include biking, swimming, and mass destruction.

Sonali "Allie" Sharma, MD '04: "I recently converted my private practice in psychiatry in Manhattan into a telepsychiatry practice and took a job at HealthNet TPO in Amsterdam as mental health advisor. HealthNet TPO is a Dutch NGO in post-conflict and fragile states in mental health and public health and works from the community level to the ministry level to build a sustainable system of care in societies with high risk for mental health issues."

Ali Farooki, MD '08: "I was selected as one of the chief residents in my anesthesiology program at Rush University Medical Center in 2011-12."

Anthony Rossi, MD '08: "I am a dermatology resident at St. Luke's Roosevelt Hospital in New York City and will graduate in 2012. I was just named chief resident. In May 2010 I was the American Academy of Dermatology Representative to the Italian Society for Dermatology National Conference in Rimini, Italy. Also, I was awarded an American Academy of Dermatology International Fellowship, and in December of 2010 I traveled to Princess Marina Hospital in Botswana, through the Botswana-University of Pennsylvania Partnership, where I was the resident dermatologist. It was an amazing opportunity that focused on the use of teledermatology as well as dermatology related to HIV/AIDS and infectious diseases. I hope to continue working on such projects."



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In Memoriam

'42, '44 MD—Edwin D. Kilbourne of Madison, CT, February 21, 2011; authority on influenza; created the first swine flu vaccine; research and emeritus professor, New York Medical College; Distinguished Service Professor and founding chairman of microbiology, Mount Sinai Medical School; professor of public health and director of virus research, Weill Cornell Medical College; professor of medicine and director of infectious diseases, Tulane Medical School; influenza researcher, Rockefeller Institute; veteran; author; musician; tennis player; received the Borden Award, the National Institutes of Health's Dyer Award and Career Award, the Award of Distinction from WCMC, and the New York Academy of Medicine Award; active in community and professional affairs. Phi Kappa Sigma.

'54 MD—Robert D. Quinn of Del Rey Oaks, CA, and Sun City West, AZ, March 4, 2011; retired physician; veteran; active in community affairs.

'56 MD—Donald E. Allen of Standish, ME, December 31, 2010; plastic surgeon; former general practitioner; veteran.

'56 MD—William C. Cooper of Englewood, NJ, March 24, 2011; ophthalmologist; first director, Queens Eye Center; medical staff member, NY Hospital Queens; professor of ophthalmology, Weill Cornell Medical College; active in professional affairs.

'57 MD—Edmund O. Rothschild of Bronx, NY, March 16, 2011; medical director, NRI; senior VP of medical affairs, St. Joseph's Hospital in Paterson, NJ; VP of professional and academic affairs, St. Luke's Roosevelt Hospital Center; director of community medicine, Queens Hospital Center; senior VP of affiliation contracts, NYCH-

HC; honorary NYC Police surgeon; honorary medical officer, NYC Fire Dept.; active in civic, community, professional, religious, and alumni affairs. Wife, Kathleen Lonergan '75.

'62 MD—Dennis D. O'Keefe of Santa Fe, NM, formerly of Methuen, MA, November 16, 2010; emergency room doctor at Lawrence General Hospital, Lawrence, MA; fellow in cardiorespiratory research at Mass General Hospital; board certified in general and colorectal surgery; US Army physician during the Vietnam War; taught emergency field care to Green Berets; avid horseman; trained Olympic pentathlon horses for the 1968 American Olympic team; chorister; active in religious affairs.

'62 MD—George A. Omura of Birmingham, AL, April 19, 2011; medical oncologist; professor emeritus of gynecological oncology, University of Alabama at Birmingham School of Medicine; professor of medicine, hematology/oncology division at UAB; vice president for clinical development, BioCyst Pharmaceuticals; fellow in hematology/oncology at Memorial Sloan-Kettering Cancer Center; US Navy veteran; he was at work on a history of the microscope at the time of his death; active in community, professional, and religious affairs. Wife, **Emily Fowler Omura, MD '64**.

'72 MD—Steven M. Friedman of West Chester, PA, December 26, 2010; professor of medicine, Weill Cornell Medical College; expert in rheumatology and immunology; executive VP of biology and preclinical development, Incyte Pharmaceuticals; VP of research biology, DuPont Pharmaceuticals; led research teams that focused on chronic inflammation and oncology; author; musician.

Community Minded

Through the Heart to Heart program, student volunteers promote cardiovascular health for underserved New Yorkers



Preventive medicine: MD-PhD student Andrew Drysdale prepares to take a blood sample at a Heart to Heart screening session.

The thirty-something man who came to the community outreach event in Jamaica, Queens, was a bit overweight, but his major problem was a long history of heavy smoking. After being screened for a variety of cardiovascular risk factors, he got some straight talk from a volunteer health-care provider—the first time he'd ever received intensive counseling on smoking cessation or diet. "I truly feel we made a difference in his life," says fifth-year MD-PhD student Jonathan Moreno, who helped counsel the man, "and put into perspective the negative consequences of smoking."

Moreno is co-founder of the Heart to Heart program, a volunteer initiative that offers free cardiovascular health screenings to the city's medically underserved communities. The events—where needy New Yorkers are screened for such conditions as obesity, hypertension, and diabetes, both active and emerging—are staffed by medical students and physician assistant students from Weill Cornell as well as nursing students from Hunter College, overseen by faculty physicians and nurse practitioners. "We're teaching students about the benefits of cardiovascular risk prevention and the importance of community outreach, and how as medical professionals we have an obligation to prevent disease before it becomes manifest," says William Borden, MD, an assistant professor of medicine and public health in the Division of Cardiology who serves as the program's medical director.

Funded by the Clinical and Translational Science Center (CTSC) and held monthly at churches, community centers, senior centers, and street fairs throughout New York, the program is an offshoot of the student-run Weill Cornell Community Clinic. At its events, each patron is escorted through the various screening stations by a student, then meets with a physician or nurse practitioner to discuss the findings; if necessary, he or she is referred to a clinic for follow-up. "This is a great example of doctors and nurses bringing health screening to where people live," says Borden. "It educates them about their health and tells them if they have risk factors for cardiovascular disease and how to minimize them."

Each event draws between seventy-five and one hundred patrons; Moreno notes that in this context, they're not termed "patients." "We're not providing medical care in the strictest sense of the word," he says. "We're doing screenings and providing information." More than two dozen students volunteer at each event, which participants say also serves to break down barriers between the professions. "They see the nuances between the nursing and medical perspectives," says Joe Saladino, a nurse practitioner and an instructor at Hunter. "They see each other's skills firsthand."

Launched in March 2010, the program was funded by an initial one-year grant from the CTSC. Moreno and Heart to Heart co-founder Suchit Patel, a fifth-year MD-PhD student with whom he co-directs the Community Clinic, are seeking additional grants to support the program for another two years. "It's a great thing for the community," says Patel, "and for the students, who learn how to talk to patients and perform these tests."

For Patel, the most memorable case so far was that of a woman who came to a Brooklyn event having recently fled Haiti, speaking no English and having no money for food or shelter. Luckily, one of the medical students spoke Creole; the woman was referred to the Community Clinic for her health issues and to a social worker for help in accessing benefits. "It was extremely heartwarming," Patel says. "Not only was this great for her, but the student got to see how health care and social services are actually delivered."



Student Scholarships — Planning Ahead

When Clare Pritchett wanted to honor her husband, R.A. Rees Pritchett, MD '48, on his birthday, she found the perfect gift: a charitable annuity dedicated to Weill Cornell student scholarships. "I was very surprised—and deeply touched," says Dr. Pritchett, a faculty member and graduate of Weill Cornell Medical College.

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R.A. Rees Pritchett, MD '48

Rees and Clare are now enjoying the fruits of his gift annuity—they receive fixed payments on a quarterly basis—which also benefits Weill Cornell and establishes gifts for future generations. A charitable annuity may be the right gift for you, too. Opportunities start at \$10,000. [Learn more at weillcornellgifts.org](http://weillcornellgifts.org)

For information, please contact
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Executive Director of Development
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Email: pag2002@med.cornell.edu

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