Finding answers at Weill Cornell

Cancer research is a critical focus of the Discoveries that Make a Difference Campaign.

The superb scientists and caring physicians of Weill Cornell are united in a single goal: breakthrough treatments and new approaches for cancer prevention and cure. They are at the vanguard of medical care and discovery.

**Interdisciplinary Research Programs**

**Infection, Inflammation and Cancer**
collaboration across academic institutions to understand why chronic inflammation leads to an increased risk of developing cancer

**Metastasis**
contributions to understanding the enzymes, proteins, and growth factors that allow a tumor to spread (“metastasize”), a major cause of mortality among cancer patients

**Obesity**
research to understand why obesity increases the risk of developing cancers of the colon, breast, uterus, pancreas, and esophagus

**Epigenomics**
trailblazers in developing the ability to diagnose and treat individual patients based on the molecular abnormalities that make each of their tumors biologically different

**Stem Cell Research**
pivotal discoveries on the nature of cancer cells, and pioneer of the concept that circulating cells play a key role in building the new blood vessels that malignant tumors need to grow

**Interdisciplinary Disease-Specific Programs**

**Hematological Malignancies**
premier center for research and clinical care of patients with leukemia, myeloma, and lymphoma

**Breast Cancer**
significant advances in the prevention, diagnosis, and management of breast cancer reflects collaborative research involving basic scientists, medical oncologists, pathologists, and surgeons

**Thoracic Cancer**
pioneers in minimal access surgery with research programs in experimental therapeutics and tumor metastasis

**Prostate and Other Urologic Cancers**
prevention and early detection through patient-oriented research that includes both physicians and scientists across disciplines from molecular and cellular biology to engineering and physics

**Childhood Cancers**
landmark discoveries on the role of bone marrow-derived cells in the spread of cancer, which are transforming the study of metastatic disease

**Gastrointestinal Cancer**
leading programs in risk assessment and innovative surgical approaches benefiting hundreds of new patients each year

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To Learn More
Please contact: Linda Nelson, Chief Development Officer, Weill Cornell Medical College Office of Institutional Advancement, at 646-962-8750 or by e-mail at lin2004@med.cornell.edu

Please write to us at: Privacy Office, Weill Cornell Medical College, 1300 York Avenue, Box 303, New York, NY 10065 if you wish to have your name removed from lists to receive fundraising requests supporting Weill Cornell Medical College in the future.
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28 ENDURANCE TEST
ANNA SOBKOWSKI

It has become a rite of passage for fourth-years: a whirlwind day at the Clinical Skills Center. In preparation for the U.S. Medical Licensing Exam, each student examines ten “patients” who are actually professional actors meticulously trained for their roles. It’s a high-pressure exercise, as they interact with patients under the watchful eye of staff who evaluate their performance—and cameras that digitally record the exams for later study.

34 MAGIC EYE

PHOTOGRAPHS BY AMELIA PANICO

By donning goggles and waving a remote control “wand,” visitors to the Weill Greenberg Center’s 3-D Immersive Visualization room can step inside the human body. The facility is what’s known as a CAVE: a computer-assisted virtual environment. It allows researchers and clinicians to view MRIs or other studies in startling depth and detail, from the large scale (a view from inside the skull) to the small (the minuitia of a dopamine transporter).

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BETH SAULNIER

Surgery professor and former Army officer David Leeser, MD, served two tours of duty in Iraq: first a relatively quiet six months in the south of the country, then a highly stressful stint in a Baghdad hospital. In a conversation with Weill Cornell Medicine, he recalls his experiences—from running a version of the Boston Marathon on the base to treating soldiers gravely injured by a truck bomb. Says Leeser: “Anybody that tells you it doesn’t get to them is fooling themselves.”

Cover photograph by Amelia Panico

For address changes and other subscription inquiries, please e-mail us at wcm@weill.cornell.edu
Shaping the Research Landscape

The research landscape at Weill Cornell Medical College is changing shape as work begins on the centerpiece of the Discoveries that Make a Difference Campaign – a new Medical Research Building. Currently, construction workers are at the site on 69th Street between York and First Avenues, preparing for foundation work that will last for the next several months. The Medical Research Building, totaling 482,000 square feet, will double the research space at Weill Cornell.

The Discoveries Campaign has raised nearly $850 million from donors, faculty, and alumni toward its goal of $1.3 billion – and continues to focus specifically on completing the required funding for the Medical Research Building. The Campaign received a significant boost when Joan and Sanford Weill established the Weill Challenge, a program that offers matching funds for gifts to the new building. Through the Weill Challenge, every $1.50 given to the Research Building will be matched with $1.00 from Mr. and Mrs. Weill. The Weill Challenge has been launched at a critical time when so many of the Medical College’s supporters are feeling the effects of the economy’s downturn. The Weill Challenge will allow more donors to maximize the impact of their gifts.

The construction site is a visible sign of the progress of the Discoveries that Make a Difference Campaign as well as the resolve and generosity of Weill Cornell donors. Through June 2009, over $265 million has been raised for the Medical Research Building toward the funding goal of $350 million. “We are a Medical College that has never veered from a challenge but stepped directly toward one. Our cause – to alleviate suffering and to work toward the hope and healing of people here in New York and around the globe – binds us as a community and galvanizes us to move forward,” says Antonio M. Gatto Jr., M.D., D. Phil., Stephen and Suzanne Weiss Dean. With the help of its generous friends, Weill Cornell will continue to push the boundaries of scientific discoveries.

Research areas include:

- Cancer
- Cardiovascular Disease
- Obesity, Diabetes and Metabolic Disorders
- Neurodegenerative, Neuropsychiatric Diseases and Aging
- Stem Cell, Development Biology, Reproductive and Regenerative Medicine
- Global Health and Infectious Disease
- Children’s Health

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Looking Back, with Pride

There is no off-season at Weill Cornell Medical College—our students and faculty are feverishly engaged in their work throughout the year. The summer, however, does slow our pace slightly, offering a chance to reflect on what has passed.

Our medical students, always a source of pride, continue to be among the brightest scientific minds in the country. The Class of 2012—eighty-nine students matriculated out of almost 6,000 applicants—brings with it the highest GPA and MCAT scores of any class in the Medical College's history. And the residency placements from this year's graduating class prove that getting into Weill Cornell is hardly the finish line for these doctors-to-be. All eighty-eight students in the Class of 2009 who pursued a postgraduate training program were accepted, and almost all of them matched to a clinical institution ranked in the top fifty by U.S. News & World Report. I'm also happy to report that our tradition of success has translated nicely to Weill Cornell Medical College in Qatar, where fourteen of the seventeen members of the 2009 graduating class—the second in the school's history—matched to residency programs in the United States. While we're pleased that Weill Cornell graduates go on to some of the most prestigious postgraduate programs, it is unfortunate that many do so with significant student loans to repay. Though their debt is less than the national average thanks to the generosity of our alumni, we hope to further reduce this amount.

At the Graduate School of Medical Sciences, the average GRE scores and GPAs of our entering students have kept pace with or surpassed other schools in the area. Weill Cornell continues to attract the best students, due in part to programs ranked among the nation's finest. This year, the Chronicle of Higher Education named our Biochemistry and Structural Biology Program the best in the country, and six others were ranked in the top ten.

Our students are able to achieve academic success not only because of their acumen and dedication, but because they are learning from some of the finest teachers and researchers ever assembled. Our faculty members continue to garner the highest awards and honors in their fields—and while we always endeavor to recruit the brightest minds, we are also making strides in ensuring that our professors represent who we are. To that end, we have formed the Office of Faculty Diversity in Medicine and Science to develop strategies for building and maintaining a truly diverse faculty.

We are in the business of discovery, of learning what was not known yesterday to better serve our patients and the global population in the future. It is a monumental task, one that doesn't leave a great deal of time for reflection. In taking a few moments to look back on this past academic year, I am filled with great pride at all that we've accomplished.
Looking Ahead, with Optimism

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

June is a month that many of us at the Weill Cornell Graduate School of Medical Sciences eagerly anticipate. It is when we honor our most diligent students at Convocation, and, of course, when we recognize all our graduates at Commencement. The dedication that these women and men have displayed throughout their years here is difficult to comprehend. Their accomplishments are hard-won, and they should be celebrated for all they have done.

It is apodictic that graduation represents not the end of a completed journey, but rather a brief rest on a lifelong path of intense study and discovery. While the life and work of a scientist is never easy, recent economic hardships have made it even more difficult. Every segment of the American population has been affected by this period of uncertainty. While we hope that the worst of the recession is behind us, we must be mindful that jobs remain scarce, and that funding for research—never easy to secure—is harder to find than ever. And it is not just Weill Cornell scientists who must struggle to survive and prosper in this ever-competitive field. Great minds from institutions around the world are facing the same challenges.

But I think there is still much to be optimistic about.

The current U.S. presidential administration is ushering in an era of renewed faith in and reliance on scientific study, as evidenced by the NIH “stimulus package.” Avenues of research such as stem cells and cord blood have been opened to us. World leaders are counting on us to find solutions for many of this planet’s most pressing concerns. By creating science-friendly regulations and legislation, they have given us the freedom, the resources, and the technology we need to succeed.

Also, thanks to the organizational foresight of our administration and faculty, the Graduate School is prepared to weather this economic downturn. Yes, belt-tightening has taken place, with some projects and capital-planning items put on hold, but the important work of this institution continues unabated.

An education from the Weill Cornell Graduate School of Medical Sciences is a distinct advantage in any professional climate. The reputation our students earn by completing this challenging curriculum will follow them throughout their careers, opening doors and creating opportunities wherever they go. Thanks to our faculty, administration, and alumni, Weill Cornell will continue on its winning trajectory despite the current economic conditions. We must preserve our sense of community and approach the challenges ahead with good will toward our colleagues and confidence in our institution. We should all strive to make our erudition and scholarship exemplary, and, with a Weill Cornell educational experience, our wishes can be fulfilled.
Qatar Convocation: On a balmy evening in Doha, Her Highness Sheikha Mozah Bint Nasser Al-Missned addressed a crowd of 2,400 at Education City’s outdoor Convocation ceremony. Education City’s second graduating class comprised 200 students, including seventeen new MDs from Weill Cornell Medical College in Qatar. Other American universities with programs in Doha include Carnegie Mellon, Virginia Commonwealth, Texas A&M, and Georgetown. “As we celebrate the graduation of 200 young men and women from this country and abroad, we reaffirm the critical role of education in injecting new blood into the Qatari society in particular and human society in general,” said Sheikha Mozah, Qatar’s first lady and the driving force behind Education City. For more on the WCMC-Q Commencement, see page 8.
At the traditional Commencement ceremony in Carnegie Hall in June, 180 men and women earned advanced degrees from Weill Cornell’s New York campus—including ninety-two MDs, fifty-eight PhDs, thirteen MD-PhDs, and seventeen masters of science. “Fellow doctors, let’s do good,” said MD class speaker Thomas Neely. “Let’s do well to better this profession we have chosen and sacrificed greatly to be part of.” In his address, President David Skorton, MD, told graduates that they and the Medical College must continue to be at the forefront of the nation’s public policy debate. “You must think more broadly and creatively on how your efforts can bring help to more people in more places at lower costs,” he said. A month earlier, the Qatar branch graduated its second class of MDs, granting the degree to seventeen students, some of whom also attended Commencement in New York. In addition to Qatar, the thirteen women and four men come from such countries as Bangladesh, Egypt, Iran, Iraq, Jordan, Lebanon, Oman, Tunisia, and the U.S.
Ceremony & celebration: President David Skorton, MD, addresses the crowd in Carnegie Hall. Above: Red-robed graduates fill the orchestra seats. Left: Taking the oath to “do no harm.”
**NYPH Named Number Six in U.S., Top Children’s Hospital in Tri-State**

*U.S. News & World Report* has ranked NewYork-Presbyterian Hospital the sixth best in the nation; it’s the sixth consecutive year that the hospital has made the Top Ten. The magazine’s annual survey also honored NYPH as the best in the tri-state area for children’s medical care. NYPH was the only facility in the region to make the magazine’s “honor roll” of the top children’s hospitals in America—and one of just ten in the U.S. to be ranked in all ten clinical specialties, including cancer, neonatal care, and orthopaedics. The hospital serves pediatric patients at two dedicated facilities: the Komansky Center for Children’s Health at Weill Cornell and Morgan Stanley Children’s Hospital at the Columbia University Medical Center campus.

**WCMC Leads New Health IT Collaborative**

As the federal government pledges to invest $19 billion in health information technology, Weill Cornell is leading a four-institution collaborative to evaluate the effectiveness of health IT adoption in New York State. The state has already awarded the collaborative—also including SUNY Albany, the University of Rochester, and Columbia—more than $5 million. The collaborative, named the Health Information Technology Evaluation Collaborative for New York (HITEC), was founded by faculty members of the Medical College in 2003 after the passage of the Health Care Efficiency and Affordability Law for New Yorkers. The law allocated $250 million to health information technology. HITEC executive director and founder Rainu Kaushal, MD, chief of Weill Cornell’s Division of Quality and Medical Informatics, says: “One thing that struck us was that as wonderful as it was that New York State was taking a lead in investing in health information technology, it was equally critical that the investment be evaluated rigorously so we could understand what’s working well and what’s not.”

**Dean Gotto Leads International Atherosclerosis Symposium**

Dean Antonio Gotto, MD, served as one of the leaders of an international symposium on atherosclerosis, held in Boston in mid-June. The meeting, under the auspices of the International Atherosclerosis Society, marked the first time the event was held in the U.S. in three decades. It featured more than 1,500 scientific presentations and poster sessions and invited speakers from twenty-five countries. Gotto, an authority on using statins to prevent and treat atherosclerosis, chaired a plenary session on inhibitors of cholesterol synthesis and absorption as well as a clinical symposium on new developments in statin therapy. The meeting, Gotto says, was “a unique opportunity for the world’s top experts in this field to gather and share their latest research findings with the aim of reducing the impact of this disease.” Atherosclerosis is the underlying cause of much heart disease and stroke, which together account for more than half of all deaths and disability in the developed world.

**Fashion Show Raises $500,000 for Obstetrics/Gynecology**

The Swiss fashion house Akris featured its fall/winter 2009–10 collection at a fashion show to benefit women’s health at NYPH/WCMC. The event, held at Cipriani 42nd Street in May, raised some $500,000 for the Department of Obstetrics and Gynecology. The department traces its roots back to 1799 and the founding of the Lying-In Hospital, the city’s first facility devoted to caring for women in childbirth. Attendees at the benefit included department chairman Frank Chervenak, MD, and Zev Rosenwaks, MD, director of the Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine.
Genetic Disease Pioneer Dies at Eighty-Six

Alexander Bearn, MD, chairman emeritus of the Department of Medicine and former physician-in-chief at NYPH/WCMC, died May 15 in Philadelphia of heart failure. Bearn was a pioneer in the study of genetic diseases; he was the first to trace the cause of Wilson’s disease, which causes a potentially fatal buildup of copper in the body. A former president of the American Philosophical Society, he founded Weill Cornell’s first human genetics lab and helped establish the joint MD-PhD program with the Rockefeller University. Born in England, he earned his bachelor’s and medical degrees from the University of London; he is survived by a daughter, Helen Pennoyer; a son, Gordon; a brother; and five grandchildren.

LeFrak Gift Endows Robotic Surgery Center

A new center for robotic surgery will be established at NYPH/WCMC, thanks to a $3 million gift from the Richard and Karen LeFrak Charitable Foundation. The center, headed by internationally renowned robotic surgery expert Ashutosh Tewari, MD, will focus on treatments for prostate cancer and other urologic conditions and support innovative procedures in such areas as otolaryngology, ob/gyn, and ophthalmology. The gift will also enable the purchase of a da Vinci surgical robot—the third at the Medical Center—and support multidisciplinary research.

Grand Rounds Spotlights Drugs in Sports

In April, internal medicine professor Ronald Crystal, MD, gave Grand Rounds on a topic of interest to physicians and sports fans alike: the use of performance-enhancing drugs. Crystal, chairman of the Department of Genetic Medicine, discussed the risks of using anabolic steroids and other drugs such as the stimulant ephedra. He stressed that some substances have documented ill effects—although steroids can increase strength and speed, users can suffer liver damage, depression, infertility, and impotence—while others have yet to be studied. Some, such as human growth hormone and androstenedione (which enhances testosterone production), have been used despite a lack of evidence that they even improve performance. “These drugs get widely publicized,” he said, “and there is an automatic assumption that they work.” He noted that testing technology lags far behind the science of doping, and that the latest frontier—genetic doping, in which genes associated with certain skills are transferred to an athlete’s DNA—will make such cheating all but undetectable. “This area is different from other areas of medicine because it’s done surreptitiously,” Crystal told his audience in Uris Auditorium. “The patients are not going to tell you they are using these drugs, but it’s something we need to be aware of.”

Helmsley Trust Gives $42 Million to NYPH and Cornell

The Helmsley Charitable Trust will give $40 million to the Center for Digestive Diseases at NewYork-Presbyterian Hospital, the trust announced in April. It’s the largest single gift of the $136 million earmarked for charitable organizations in the trust’s first disbursement following the death of Leona Helmsley, widow of real estate magnate Harry Helmsley. The trust will also give $2 million for undergraduate scholarships at Cornell’s School of Hotel Administration in Ithaca.
WCMC-Q Garners Qatari Research Grants

Biomedical scientists at WCMC-Q have won more than $19 million in grant funding from the Qatar National Research Program. The Qatar branch received a total of twenty grants in such areas as stem cells, molecular medicine, genomics, cancer, and diabetes. According to Interim Dean Javaid Sheikh, MD, the award will boost the campus’s ability to recruit top scientists. “With this kind of support, individual investigators can initiate novel research and do it at a serious level that’s competitive internationally,” he says, “leading to contributions scientifically through publications, new knowledge, and patents.”

‘White-Coat Hypertension’ Expert Pickering Dies

Thomas Pickering, MD, DPhil, a long-time Weill Cornell faculty member who had been teaching at Columbia since 2003, died of cancer on May 14. A native of England, he held degrees from both Oxford and Cambridge. Pickering was an expert on the behavioral aspects of hypertensive cardiovascular disease, coining the term “white-coat hypertension” to describe patients whose blood pressure is elevated in the doctor’s office but otherwise normal; he also published the first editorial describing the opposite problem, which he called “masked hypertension.” Survivors include his wife, Janet, and two sons.

WCMC Founds New Office of Faculty Diversity

As of July, the Medical College has established an Office of Faculty Diversity in Medicine and Science. The new office’s mission is expressed in the acronym IDEAL: Inclusiveness, Diversity, and Equity in Academic Leadership. “This culture will be created through recruitment, mentoring, promotion, retention, and selection for leadership roles to develop and sustain a diverse faculty,” says Dean Antonio Gotto. The office will be led by Debra Leonard, MD, PhD, as chief diversity officer; Carla Boutin-Foster, MD, as director for diversity in medicine and science; and Rache Simmons, MD, as director for women in medicine and science.

Intercampus Event Focuses on Business of Health Care

In late April, a symposium brought together students and faculty from two Cornell graduate programs—the Medical College and the Johnson Graduate School of Management—to discuss the intersection of their fields. “The word ‘business’ mentioned in the same sentence as ‘medicine’ often elicits a sense of frustration or dismay among clinicians,” noted MD-MBA student Adam Hill. But at the symposium, which was held in Uris Auditorium and simulcast to the Johnson School’s Sage Hall in Ithaca, participants discussed how business tools can help repair the health-care system and deliver treatment at lower cost. Participants addressed such topics as the costs of drug development, the availability of care in the devel-
State Psychiatric Institute Names Building in Honor of Pardes

In recognition of his contributions to mental health, a building at the New York State Psychiatric Institute on the Columbia campus has been named for NYPH President and CEO Herbert Pardes, MD. Pardes, who directed the institute from 1984 to 1989, was honored in a dedication ceremony in May, with guest speakers including former Governor Mario Cuomo. “While serving as head of the Institute, Dr. Pardes advanced a vision of an integrated research and academic setting to unravel the mysteries of mental illness,” said Michael Hogan, PhD, commissioner of the state Office of Mental Health. “This vision led to the construction of the building that will soon bear his name.”

Hematopathologist Wins Greenberg Distinguished Service Award

At a gala dinner at The Pierre in May, Daniel Knowles, MD, was honored with the Maurice R. Greenberg Distinguished Service Award. Knowles, an internationally recognized expert in hemopathology, is the David D. Thompson Professor and chairman of the Department of Pathology and pathologist-in-chief at NYPH/WCMC. He has published more than 275 scientific papers; serves on more than fifteen editorial boards; and is the editor of the leading textbook in the field, *Neoplastic Hemopathology*. Established in 1980, the award includes a $50,000 grant made possible through an endowment from longtime hospital benefactor Maurice Greenberg and the Starr Foundation. It is presented annually to a senior member of NYPH/WCMC’s medical staff in recognition of exceptional and longstanding service.

TIP OF THE CAP TO...

Professor emeritus of psychiatry Arnold Cooper, MD, recipient of the Blumenthal Memorial Award from the UJA-Federation of New York’s Mental Health Professionals Division.

Clinical medicine professor Ira Jacobson, MD, invited as an expert speaker for a Congressional briefing on chronic viral hepatitis.

Public health professor Warren Johnson, MD, recipient of a $3 million National Institutes of Health training grant for his continuing work in Haiti.

Urology residents Eric Kauffman, MD, and Puneet Masson, MD, first-place winners in a New York Academy of Medicine essay contest in the categories of basic science and clinical medicine, respectively. Residents Ranjith Ramasamy, MD, and Peter Stahl ’99, MD ’04, earned honorable mention.

Pathology professor Daniel Knowles, MD, winner of Weill Cornell’s Greenberg Distinguished Service Award.

Professor of pediatrics David Lyden, MD, PhD, recipient of a $300,000 Individual Biomedical Research Award from the Hartwell Foundation for his work on medullablastoma.

Carol McIntosh ’83, MD ’87, honored by Queen Elizabeth II with the Most Excellent Order of the British Empire for her medical service to Grenada.

Medicine professor Ari Melnick, MD, winner of a $750,000 Burroughs Wellcome Fund Award for research on B-cell lymphoma.

Surgery chairman Fabrizio Michelassi, MD, inducted into the American Society of the Italian Legions of Merit.

Hematology and oncology professor David Nanus, MD, winner of the Dan Fogelberg Creativity Award from the Prostate Cancer Foundation.

Vanderbilt University professor William Schaffner, MD ’62, winner of the Bruce Award for Distinguished Contributions in Preventive Medicine from the American College of Physicians.

Cornell president David Skorton, MD, awarded the title of “master” by the American College of Cardiology.

Surgery professor Jason Spector ’91, MD, named an Academic Scholar of the American Association of Plastic Surgeons.

Medicine professor Kurt Stenzel, MD ’58, recipient of the Carolyn Diehl Hope and Humanity Award from the Rogosin Institute, where he is medical director.
Radiation Is Key to Successful Cancer Treatment

Two studies have underlined the importance of radiation therapy in battling cancer. In work published in the International Journal of Radiation Oncology, Biology, and Physics with clinical radiation oncology professor David Shen, MD, as senior author, researchers found that administering radiation before surgery nearly doubles the overall survival rate in pancreatic cancer patients with operable tumors compared to those who opt for post-operative radiation or forgo it altogether. And in research published in the journal Cancer, a team led by public health professor Heather Taffet Gold, MD, found that in women over sixty-five, a recurrence of breast cancer is significantly more likely for patients who delay radiation by eight or more weeks after surgery or have an incomplete course of treatment.

Growth Factor Offers New Clues About Memory Formation

In work that could lead to better understanding of how memories are formed, Weill Cornell researchers have gained new insights into the role of a neural growth factor called proBDNF. Working in a mouse model, medicine professor Barbara Hempstead, MD, PhD, and colleagues found that proBDNF is present and possibly active when memories are formed, Weill Cornell researchers have gained new insights into the role of a neural growth factor called proBDNF. Working in a mouse model, medicine professor Barbara Hempstead, MD, PhD, and colleagues found that proBDNF is present and possibly active when memories are formed, Weill Cornell researchers have gained new insights into the role of a neural growth factor called proBDNF. Working in a mouse model, medicine professor Barbara Hempstead, MD, PhD, and colleagues found that proBDNF is present and possibly active when memories are formed, Weill Cornell researchers have gained new insights into the role of a neural growth factor called proBDNF. 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New Contraceptive Ring Fights HIV Infection

A new contraceptive device may block transmission of the HIV virus, Weill Cornell researchers reported in the journal AIDS. In lab tests using human cells, a vaginal ring has proven effective in preventing conception and sexually transmitted HIV infection. It works by releasing non-hormonal agents, microbicides, and antiviral drugs for up to twenty-eight days. “This device is a new approach to birth control, because it avoids the long-term use of hormonal methods that have been associated with increased risk of certain cancers,” says endocrinology professor Brij Saxena, PhD. The ring combines a new anti-HIV agent with other compounds already approved by the FDA.

Comparing Two Treatments for Anorexia Nervosa

To help teens suffering from anorexia nervosa, a study is comparing two kinds of family-oriented outpatient therapies. Both the Maudsley Approach and Family Systems Therapy use family members to monitor children’s meals. But Family Systems mainly addresses underlying issues affecting weight, whereas Maudsley deals with weight gain first and family issues second. “Anorexia is a life-threatening condition,” says psychiatry professor Katherine Halmi, MD, founder of Weill Cornell’s Eating Disorders Program. “Treating it early is important since it is during the teenage years that this disorder usually takes hold.” The ongoing study, funded by the National Institutes of Health, involves 240 patients ages twelve to eighteen at six centers nationwide.

First Workable Mouse Model Aids Parkinson’s Research

Parkinson’s may become easier to treat thanks to a new genetically engineered mouse, the first workable model to successfully replicate brain degeneration caused by the disease. According to Weill Cornell neurologists, earlier models fell short due to technological limitations—but using new technology, scientists have introduced into the mouse’s genome a mutant form of the LRRK2 gene, the most common genetic cause of Parkinson’s. “Because this new mouse model replicates the pathogenesis of human Parkinson’s so closely, it promises to be a major boon to Parkinson’s research, in terms of both basic science and drug development,” says neurologist M. Flint Beal, MD. The findings were published in Nature Neuroscience.

‘Electronic Pill’ Monitors Ulcerative Colitis

By swallowing an electronic capsule, patients with mild to moderate ulcerative colitis may receive more effective treatment. A new diagnostic tool called SmartPill travels through the gastrointestinal tract and records pH, pressure, and temperature levels; they’re transmitted to a data receiver worn by the patient, then analyzed by a physician. SmartPill testing has determined that colitis patients have a significantly more acidic pH in their colons compared with average people, and that patients’ varying pH levels may affect proper release and efficacy of medication. “This may help us understand why some drug treatments are more effective than others,” says medicine professor Brian Bosworth, MD, the study’s lead investigator.

Cancer Experts Explore the ‘Metastatic Niche’

Cancer biologists are questioning the “seed” model that holds tumors totally responsible for metastasis, which causes most cancer deaths. In a study led by cell and
developmental biology professor David Lyden, MD, researchers are looking more closely at the “soil”—the tissues where the tumor is rooted. Closer examination of that microenvironment, known as the metastatic niche, may uncover new methods for early detection and prevention. “The ramifications of this approach for cancer treatment, we believe, are inestimable,” says Lyden, whose work was published in Nature Reviews Cancer.

Can Gene Therapy Make Stem Cell Treatments Safer?
Since stem cells can differentiate into every kind of body tissue and have no “expiration date,” those used to treat life-threatening conditions could have unwanted effects later on. But Weill Cornell researchers hope that gene therapy can help ensure the safety of such transplants, avoiding potentially deadly consequences such as tumors. “Stem cell therapy offers enormous potential to treat and even cure serious diseases,” says genetic medicine professor Ronald Crystal, MD, who led a study published in Cell Stem Cell. “But wayward stem cells can turn into a runaway train without a conductor.”

Ongoing Trial Tests Vaccine for Common Brain Cancer
A vaccine may prevent recurrence and extend survival for patients with glioblastoma multiforme, the most common and aggressive form of brain cancer. Weill Cornell is part of a team conducting an ongoing clinical trial of the drug CDX-110, which is believed to “train” the immune system to target and kill cancer cells. “Even after surgery, radiation, and chemotherapy, this deadly brain cancer has a high likelihood of recurrence,” says neurosurgeon Theodore Schwartz, MD. “This experimental vaccine is designed to harness the body’s immune system to keep the cancer at bay.” Earlier trials found that the drug significantly extended overall survival, from 15.2 months to 33.1 months.

New Drug Shows Promise in Curing Hepatitis C
A new drug may significantly improve the chances of curing the most common form of hepatitis C—and do so in half the time of standard therapy. Weill Cornell is one of three dozen centers conducting clinical trials of telaprevir, which works by blocking an enzyme the virus needs to replicate. Also, the shortened treatment period may reduce the potentially severe side effects associated with standard therapy. “These findings point the way to a new era in the treatment of hepatitis C,” says clinical medicine professor Ira Jacobson, MD, chief of the Division of Gastroenterology and Hepatology. The results of the Phase IIb clinical trial were published in the New England Journal of Medicine.

Bill for Physician-HMO Interactions Tops $30 Billion
The administrative tasks of interacting with health plans are costing physician practices $31 billion a year—and physicians themselves the equivalent of three entire workweeks. That’s the finding of a study led by public health professor Lawrence Casalino, MD, PhD, whose results were published in Health Affairs. The national survey found that nursing staff spend more than twenty-three weeks per physician per year on health plan interactions, and clerical staff forty-four weeks. According to Casalino, it would be useful “to explore ways to make the interactions more efficient, both on the health plan side and in physician offices.” The $31 billion figure represents 6.9 percent of all U.S. expenditures for physician and clinical services.

A Third Option for Laparoscopic Bowel Surgery
To laparoscopic surgery and the traditional open procedure, add a third, hybrid option: hand-assisted laparoscopic surgery (HALS). In a study published in the Journal of the American College of Surgeons, clinical surgery professor Toyooki Sonoda, MD, found that for patients undergoing bowel surgery, HALS is as safe and effective as the standard laparoscopic procedure, and may be quicker. In HALS, a slightly larger incision is made at the start of the operation to allow for the insertion of a hand, which works in tandem with laparoscopic instruments to remove or repair tissue. “Bowel surgery can be highly complex, so sometimes a human hand is helpful,” Sonoda says. Patients with ulcerative colitis, Crohn’s disease, diverticulitis, or colorectal cancer are being encouraged to consider this new surgical option.

Qatar Researchers Map the Date Palm Genome
Geneticists at the Qatar branch have mapped a draft version of the date palm genome, unlocking secrets that will aid researchers seeking to improve fruit yield, quality, and disease resistance of the Middle East staple crop. The work is also giving WCMC-Q the chance to test its lab capabilities before taking on large-scale genomics projects. The mapping of the date palm “clearly demonstrates the feasibility and success of the most advanced genomics technologies in Qatar and represents a milestone toward establishing WCMC-Q as a regional research center of excellence,” says physiology and biophysics professor Khaled Machaca, PhD.
The brainstorm hit when Leon Bellan was back home in Southern California, on vacation from his PhD studies on the Ithaca campus. During a symposium at Cornell’s Nanobiotechnology Center in September 2007, he’d heard a talk by Weill Cornell reconstructive plastic surgeon Jason Spector, MD, who described his specialty’s holy grail: a blood supply that can sustain bioengineered tissues. The two-decades-old field of tissue engineering, he explained, had yet to live up to its promise of providing viable, lifelike replacements for human body parts—be it a breast lost to cancer, bone needed to repair a ruined jaw, or large flaps of skin to cover an open fracture after a car accident. “Whoever does solve it will have achieved a quantum leap,” says Spector, who earned an undergraduate degree from
“It’s as significant as doing surgery with and without anesthesia. Tissue engineering is completely hamstrung by the fact that no one has figured this out.”

Bellan wasn’t a biomedical researcher—he was studying applied and engineering physics in the lab of nanotechnologist Harold Craighead, PhD ’80, working on a “cheap and easy” way to make nanofibers through a method called electrospinning. He knew the fibers themselves couldn’t help Spector; they were too small and could be made only into thin mats, not the three-dimensional structures a surgeon would need to rebuild the human body. “Driving around, I was wondering, What’s larger than nanofibers, has significant 3-D extent, and is nontoxic, extremely cheap, and water soluble?” Bellan recalls. “When I talked about the nanofibers I liked to use analogies: ‘They look like Silly String or Cheez Whiz or cotton candy.’ And I thought, ‘Oh, cotton candy.’ ”

The size was right: at ten to fifty microns, the confection’s wispy fibers are roughly the same diameter as human capillaries. So when Bellan got back to Ithaca, he went to the Target store and picked up a cotton candy machine for $40. (“The guy at Target didn’t know they sold them,” he says, “but I’d looked on the Web.”) Such machines make the familiar carnival treat through a process called melt spinning: they heat the sugar and extrude it through tiny holes, creating a mesh of ultrathin fibers. After Bellan made some, he coated it in a liquid polymer, which hardened. The cotton candy was then dissolved in water, leaving behind a mold (or “construct”) that bears the shape of the original, in which scientists can seed cells to grow artificial blood vessels. “The body does the most incredible tissue engineering of all,” Spector observes. “It’s a self-assembling machine. It’s incredible what happens with the processes of growth and repair. The ideal is to provide a platform onto which the body can do the rest.”

In the intervening two years, Spector and Bellan’s collaboration has yielded promising results. Their work was published in the journal Soft Matter last February, prompting extensive coverage in the national news, including a spot on National Public Radio; the media, Spector notes, can’t get enough of the cotton candy angle. Although Bellan completed his PhD in 2008 and moved on to a postdoc in chemical engineering at MIT, their collaboration continues. It will be at least three to five years, they say, before the technique is even in preclinical use, and many challenges remain. One major hurdle is thrombosis. “Even if you crafted a perfect architecture, if you attached it to a blood supply it would immediately clot, because the body’s vascular channels are lined with endothelial cells, which maintain an anticlotting environment,” Spector says. “In my lab we’re now trying to take our constructs and line them with endothelial cells—that, in and of itself, is a technological challenge. Then we’ll start putting them into animals and see how they do.”

Another issue the researchers must wrestle with, Bellan says, is a difference in structure. Though the spacing between the channels is about the same in each system, blood vessels are organized into branches; cotton candy isn’t. “Whether in the long run that will make it inappropriate for this purpose, I don’t know,” he says. “How good this system has to be before it’s good enough is an open question.” Bellan also acknowledges that at least for now, there is a limit to how much control can be exerted over the finished product. “I cut open the cotton candy machine so I can speed up or slow down the part that rotates, and that gives me a little control over the average size of the fibers that come out,” Bellan says. “One could imagine that in the long run you could also control humidity and temperature. But in terms of putting each strand where you want it, certainly not. So it’s a tradeoff—it’s inexpensive and scalable, but you’re not able to position each particular thing.”

And what of the delights of cotton candy as a snack? Spector is partial to it. But even its potential to revolutionize tissue engineering has not swayed Bellan to its sugary charms. “I still don’t like it,” he says. “And for safety reasons, we can’t eat anything in the lab anyway. It does make everything smell nice, though.”

— Beth Saulnier
A Passion for Policy

Students explore health-care reform

As a first-year, Lena Makaroun ‘12 spent her days doing dissections in anatomy lab and attending lectures in immunology and microbiology. But she also wanted to learn about health-care policy—something there’s not much time for in the packed curriculum of medical school. After meeting other like-minded first-years, she helped form a student organization called the Center for Discourse on U.S. Health-care Policy. The group, which has grown to fifteen members, is dedicated to studying and debating issues in health-care reform. “It enhances our class experience,” says co-founder Dan Wiznia ’12. “We wanted to make sure we were aware of the policies being formed and how they will impact our practice of medicine. Especially with President Obama being elected, we knew there would be a change coming.”

Twice a month, the students meet to discuss journal articles on topics such as the lessons the U.S. can learn from other countries, the impact of the income gap between specialists and primary care physicians, and Obama’s proposals for universal coverage. “We have such a diversity of viewpoints and range of expertise,” says Makaroun. “One student worked in health-care consulting, another was an economics major, and I’m interested in the social aspects of medicine. I appreciate that we maintain an objective outlook and come at these issues from all angles.” Members often e-mail the authors of the articles to share their thoughts and ask for recommendations on additional source material. After reading a particularly intriguing piece in the New England Journal of Medicine on Medicare’s limited ability to control rising spending on cancer drugs, they contacted the...
author, Peter Bach, MD, an associate attending physician at Memorial Sloan-Kettering Cancer Center, who invited them to meet with him. “He helped us wade through the complexities of the ways drugs are priced,” says Rob Korom ’12.

The group has also organized two panel discussions, open to all students and faculty. In a December event called “Money Matters,” four doctors in different specialties explained how finances affect their practices. “A surgeon explained how he is reimbursed more when he conducts procedures than when he just sees patients; a psychiatrist spoke about switching to a cash-only practice because reimbursement from payers was too low,” says Wiznia. “It was interesting to get these perspectives and to have them play off each other.” In May the Center and another student group, the Business and Medicine Society, co-hosted a panel on comparative effectiveness research. Panelists included a former New York lieutenant governor, a vice president of the Kidney Foundation, an executive at McKinsey & Company, and the director of the primary care division of the Weill Cornell Physician Organization. In a lively exchange, each described the potential benefits of studies that compare the effectiveness of different treatments for a specific condition. They also talked about the controversies surrounding this type of research—whether it could lead to increasing regulation of physician decision-making, for example—and answered questions from the audience.

Center members are currently planning their first research project, on a topic that grew out of their policy discussions. “We were thinking about how to improve the way doctors interact with patients and came up with an idea for giving patients a written record of all the medications they’re supposed to be taking, which is something they rarely get in an outpatient setting,” says Korom. Working with professor of clinical medicine Robert Meyer, MD, and professor of clinical public health Madelon Finkel, PhD, the students completed a proposal for a trial in which patients would be given a list of their meds (and information on why they’ve been prescribed) at each visit. Afterward, the patients would be surveyed on whether they took their drugs, health outcomes, and how satisfied they were with their physician. Korom is working on the project full-time this summer, running a pilot study and applying for funding.

Students say their work with the Center is shaping their career and research interests. Makaroun started medical school focused on global health, but says the group got her “extremely interested” in domestic health-care issues. As a result, she is doing a fellowship through the American Federation for Aging Research in which she’ll gather data on how much time geriatricians at NewYork-Presbyterian Hospital spend on non-reimbursable care.

Next semester, Makaroun says, the Center for Discourse hopes to recruit new first-years, continue to host events, and compile their ideas into op-ed pieces. For her part, she plans to stay involved despite a demanding second-year schedule. Says Makaroun: “It’s such a proactive, passionate group.”

— Jen Uscher

Stress Test

Studying how mice (and men) react under pressure

Twenty-nine-year-old Conor Liston, who led a recent neuroimaging study on the cognitive effects of stress, doesn’t seem like a particularly anxious guy. “Overall,” he says, “I’m pretty level-headed and emotionally reserved in most situations—’low reactive,’ as the psychologists would put it.”

Liston, who graduated from Harvard summa cum laude and is pursuing his MD-PhD at Weill Cornell and the Rockefeller University, has known his fair share of pressure. But he says that his interest in stress had nothing to do with personal experience—or the fact that he happened to be surrounded by an ideal group of human subjects. “I wanted to study stress because it’s a well-known risk factor for many neuropsychiatric conditions—but unlike plenty of others, its effects on the brain can be measured,” Liston explains. “At the same time, it was obvious from day one that I had a perfect population at my fingertips, because medical students are very stressed out.”

Liston and his team corralled twenty male students in the midst of prepping for board exams and scanned their brains using fMRI, looking for stress-induced changes in the form of diminished activity in the medial prefrontal cortex. His study, which followed up on a similar experiment done at Mount Sinai on stressed rats foraging for food, was published in the January 2009 issue of the Proceedings of the National Academy of Sciences. It found that those who described themselves as relatively relaxed were able to shift their attention from one task to another more quickly than those who self-identified as stressed—and that the stressed-out group did show changes on fMRI, just as the mice had. The good news: a month after the exam, their stress levels—and brains—had gone back to normal. Liston now plans to study how stress affects other neural regions and whether responses differ according to gender. “It’s been my experience that all the things you’re supposed to do to beat stress—eat healthy food, exercise, and sleep an adequate amount—really do help,” he says by way of advice. “But it can be hard to stick to good habits when your time is limited.”

— Maura Kelly
As the chairman of the Department of Public Health at Weill Cornell, Alvin Mushlin, MD, ScM, the Nanette Laitman Distinguished Professor of Public Health, oversees a department with three dozen full-time faculty and another sixty with secondary appointments. The department comprises six divisions: Biostatistics and Epidemiology (Chief: Madhu Mazumdar, PhD, MA, MS), which serves as an academic home for those fields, conducts methodologic studies, and supports research; Community and Public Health Programs (Interim Chief: Ann Beeder, MD), which organizes community outreach programs and operates clinics for the treatment and research of substance abuse and commonly co-occurring medical conditions such as HIV and hepatitis C; Health Policy (Chief: Bruce Schackman, PhD), which studies health-care financing and reimbursement, technology assessment, incentives for implementation of evidence-based practice, and treatment disparities; Medical Ethics (Chief: Joseph Fins, MD, FACP), which studies and provides guidance to clinicians, researchers, and policy makers on ethical issues such as end-of-life care, health-care technology, treatment of brain-injured patients, and research ethics; Outcomes and Effectiveness Research (Chief: Lawrence Casalino, MD, PhD), which evaluates the quality and outcomes of clinical care by identifying how well medical interventions and systems for the delivery of care work in the real world and how they can be improved; and Prevention and Health Behavior (Chief: Gilbert Botvin, PhD), which promotes health and disease prevention, including school-based substance abuse programs.

Weill Cornell Medicine: The country has been concerned about a potential swine flu pandemic. What do you think of the public health response?

Alvin Mushlin: At least so far, the information coming out from the CDC and the New York State and City departments of health has been really good, particularly when we consider the small size of the public health infrastructure compared to the medical care establishment.

WCM: Do you think that infrastructure should be expanded?

AM: I would be the first to argue that we need to increase its size
and its resources. Have we allocated enough resources in the eight years since 9/11? I don’t think so. We haven’t made the investments that I think are important, including investments in prevention and preparedness research.

WCM: Why is public health an especially relevant field today?
AM: In many ways, the public health problems of today are tougher to deal with than they were a century ago. Then, the problems were solved mostly by improving housing and the water supply, dealing with food safety and environmental pollution. Today, chronic illness has become the major public health problem—heart disease, cancer, diabetes, hypertension, and so forth—are the pressing issues. Mounting solutions to those problems involves a partnership between the public health establishment and the medical sector. The areas that we’re emphasizing will lead to insights, tools, and approaches that are going to make our attacks on these problems more effective. And if we’re going to figure out how to make our health-care system work better, we’re going to need the kind of expertise we have in the Department.

WCM: How were the Department’s areas of concentration established?
AM: We thought a lot about and tried to carefully identify those aspects of public health that are most important in assisting and improving what hospitals, doctors, and medical practices do. The first unifying theme is to help make medical care more effective and efficient in conquering the common and important diseases. The other thing that unifies us is that we’re all scientists, but not lab scientists in the way you usually think about medical research. We’re population, public health, and social scientists—trained in disciplines such as biostatistics, epidemiology, health economics, medical sociology, medical ethics, and anthropology.

We’re convinced that the missing element in academic medicine has been the public health point of view and approach. We have a chance here at Weill Cornell to demonstrate the value of incorporating the public health perspective and its academic disciplines into the College’s teaching and research agendas. We have an opportunity to add excellence and value to our own academic medical center and, in doing so, to demonstrate the contributions public health can bring to academic medicine generally.

WCM: How has technology opened up opportunities in the field?
AM: In many ways. For example, in our Division of Outcomes and Effectiveness Research we have an ongoing collaboration between Dr. Nathaniel Hupert and Professor Jack Muckstadt at the Engineering college in Ithaca, using computer simulation models to improve the response to public health disasters. [See “In the Event of an Emergency,” Spring 2009.] Also, an important new group affiliated with our department is doing fundamental research on the potential for computers and medical informatics to improve the quality and efficacy of health care.

WCM: How is the study of medical ethics becoming more important?
AM: It’s the missing currency in health policy. We know how to evaluate the efficacy of a new drug or device, and we are getting a better handle at how to look at the cost. So we have those two parameters, but I don’t think we’ve got nearly as good a handle on the ethical component as a third element in clinical decision-making and medical policy. For example, how should we be incorporating the fact that a person is in the late stages of life? How should we be engaging family members? How should we be putting into place policies that enable us to make sure that people’s wishes are known? The right to care and distributive justice is another major ethics concern in medicine. This includes addressing disparities among underserved populations as well as ensuring that resources are distributed equitably so that proper treatments are provided to all patients who need them. For historically neglected patients such as those with brain injury, the right to care also includes the right for attention and advocacy.

WCM: What are some examples of ways in which the Department’s educational programs contribute to the enhancement of public health?
AM: We teach in all years of the Medical College curriculum. Our primary aim is to give students an appreciation of contributions that the field of public health makes and how important future medical practice is as a crucial link to improving the public’s health. Faculty also teach courses in public health issues and methodological research techniques in the Graduate School, for the Master’s in Clinical Investigation program, and to faculty, staff, and students throughout the NewYork-Presbyterian Hospital system. We also sponsor two fellowship programs that train physicians to be independent investigators in public health research. In Qatar, the public health curriculum in the pre-medical and medical school not only matches what is taught in New York but emphasizes cross-cultural medicine—it reflects and builds on the cultural milieu while encouraging independent thought and value identification.

WCM: How has the establishment of the Qatar branch informed public health at Weill Cornell?
AM: What we’re doing for that part of the world is a feather in our cap, but I think it’s also advantageous to us. We’re able to work on some topics we wouldn’t necessarily be able to study, like the differences in the ethics of clinical decisions in that culture versus our own. It has also given us some spectacular research opportunities. For example, we’re currently doing a study of diabetes as a risk factor for heart attacks and strokes in Doha. Dr. Ron Crystal and I are going to follow up those studies with gene analysis to try to figure out whether there are special genetic predispositions to diabetic complications like heart attacks and strokes in the Qatari population. So it has allowed us to do good in an important part of the world. It also bears mentioning that in addition to Qatar, the Department collaborates in global research, clinical, and educational programs in countries including Haiti, Peru, India, Panama, and Tanzania.

— Beth Saulnier
Dr. Detective

Minnesota’s state epidemiologist helps track down dangers from food poisoning to swine flu

When three cases of salmonella turned up late last December at a nursing home in a small Minnesota town, Ruth Lynfield went on alert. As four additional cases cropped up across the state, no one was sure if they were isolated incidents or linked to a larger outbreak of food-borne illness. But when the bacteria detected in a tub of peanut butter at the nursing home genetically matched salmonella cases in other states—and was eventually linked to a total of seven deaths across the country—Minnesota’s state epidemiologist became part of an intensive effort to track down the source. “All the pieces of the puzzle started to come together,” says Lynfield ’81, MD ’85.

She followed the cases as health department workers interviewed patients in cities and rural outposts. As epidemiologists reviewed product after product, they established a pattern of contaminated foods. Within weeks, their investigations—along with those by health departments in other affected states, the Centers for Disease Control and Prevention, and the Food and Drug Administration—led to a Georgia processing plant owned by the Peanut Corporation of America.

As the “state epi” and medical director of the health department’s infectious disease division, Lynfield has to stay on top of the numbers. What she’s watching might be a single case of polio (health officials were surprised when one turned up this year in a Minnesota adult) or five hundred people across the state sickened by the H1N1 “swine flu” virus. She keeps tabs on patterns of disease as they evolve, observing whether cases are increasing, where they’re located, and which populations are hardest hit. Then she makes recommendations about how to proceed—for instance, if the protocol for pandemic flu should be put into action or a mass vaccination site needs to be opened. “The world of infectious diseases is growing more complex and rapid-fire every day—the job requires someone global-thinking and global-acting,” says the University of Minnesota’s Michael Osterholm, PhD, who was state epidemiologist several years before Lynfield. “She’s a leader in a job that has minute-by-minute impact.”

Among the nation’s health departments, Minnesota’s is known for its proactive and rigorous investigations. A recent New York Times article said that the state’s record of diligently tracking food-related sicknesses serves to safeguard “not only Minnesotans but much of the rest of the country as well.” Lynfield was appointed in 2007 after several years in the department, first as an epidemiologist and then as head of the emerging infections unit. The forty-eight-year-old sees her job as the link between physicians, who have contact with patients and observe upticks in illnesses, and agencies like the CDC and World Health Organization. This spring, amid rising fear about H1N1, she was a visible figure, relaying developments and conveying health advice through the media. She advised early on that Minnesota schools should not automatically close when a case turned up, a move that was followed across the country. “There was great potential for public panic, and we wanted to keep people concerned but not anxious,” she says. “Luckily, we quickly learned quite a bit about this virus and that its severity seems similar to seasonal influenza.”

A native of New York and the daughter of two physicians, Lynfield never doubted that her career would steer toward public service.
health. During medical school, she spent a month in Brazil on a research project tracking cases of leishmaniasis. Knocking on doors and surveying families, she got her first taste of what she calls “gumshoe epidemiology.” While specializing in pediatric infectious disease at Massachusetts General Hospital, she conducted research with the state health department—finding benefits in screening newborns for congenital toxoplasmosis, which can cause neurological damage if it’s not treated quickly. When she moved to Minnesota in 1997 with her husband (a neurologist whom she met during his residency at Weill Cornell) and their young children, she was recruited to work at the health department and contributed to a collaborative project with the CDC, investigating neonatal group B streptococcal disease. The research helped prompt new guidelines recommending that all pregnant women be screened for the bacterium to cut down on newborn infection.

Now, Lynfield faces daily challenges both with emerging diseases like MRSA (the staph infection that’s resistant to the major classes of antibiotics) and some recurring ones. A recent spike in pediatric Haemophilus influenzae type b (Hib) cases—including the death of a seven-month-old baby—has her particularly concerned. Although vaccine programs had all but eradicated deaths from the disease, a vaccine shortage and a rise in parents forgoing immunizations has Lynfield watching the numbers and preparing for downstream consequences. Her team recently swabbed children across the state to see if they’re becoming carriers and to assess whether communal immunity to Hib is diminishing. (The preliminary results were reassuring, she says.)

When employees at a Minnesota pork processing plant turned up with strange and devastating neurological symptoms, Lynfield and her team tried to pinpoint the cause—and discovered a disease never before described in the literature. They narrowed the cases to one part of the plant and found the culprit was aerosolized particles in mist from high-pressure hoses used to harvest pig brains. The company, and two others like it, immediately stopped the procedure; the stricken employees, who were treated with immunoglobulin and steroids, are on the road to recovery.

But according to Lynfield, her biggest challenge is making sure the state can handle an outbreak of pandemic influenza or widespread bioterrorism—crises that could affect thousands—and she’s working to help Minnesota prepare. Day to day, she faces each health emergency that crops up as an unfolding mystery. “When I come into work in the morning,” she says, “I never know what’s going to happen.”

— Kate Ledger
service with a smile

ithaca-based program helps

Many patients know the frustration of rushing to a doctor’s appointment, then sitting in a waiting room as they watch the minutes tick by. Maybe they make it straight to the exam room—and then wait there without so much as a magazine for distraction. But what if someone popped in and offered them a cup of coffee? Or apologized for the wait, said the doctor was on an emergency call—and offered them a pager so they could take a stroll and get buzzed when it’s time for their appointment?

That’s the kind of innovative customer service that Richard Paddy has helped introduce to Weill Cornell’s Department of Neurological Surgery. Last year Paddy spearheaded a partnership between the department and the Sloan Program in Health Administration on the Ithaca campus. The goal: put some hospitality back into the hospital. “Hospitality isn’t limited to a particular industry,” says Paddy, the department administrator. “The health-care setting is a place where it should exist.”

Paddy admits that it’s hard to make major invasive procedures, like brain surgery, “hospitality.” But between a patient’s initial visit and an operation, there are myriad interactions with clinicians and support staff; much can be done to make the journey as pleasant as possible. Hence Paddy’s efforts to set a “platinum standard” for patient care in the department with help from students in the Sloan Program (based in the College of Human Ecology) and advice from hospitality gurus in the School of Hotel Administration.

Weill Cornell doctors in neurological surgery typically see 5,000 new patients a year, of which about 2,000 are surgical cases. The department has eleven surgeons, ten “physician extenders”—such as nurse practitioners and physician assistants—and thirty-seven support staff. Paddy says that patient feedback on customer service surveys in the past was above average, but not ideal. Since they’ve introduced the customer service program, however, those surveys are improving.

Now headed into its second year, the collaborative project has produced a customer service manual for support staff that outlines goals and performance standards. The emphasis is on courtesy at all levels: handling patient phone calls, doing admissions, sending e-mail, contacting cli-
neurosurgeons raise patient satisfaction

It's not unusual for neurosurgeons to be called away for emergencies that can derail schedules. To improve the patient experience, the department now offers a “service recovery kit,” which might include a voucher for coffee in the cafeteria. For patients whose wait is expected to be lengthy, staff offer a pager; if they opt to stay, there are games, crosswords, and Sudoku to keep them entertained. “This is truly an innovative program,” says Deborah Als, the department’s clinical practice manager. “We have brilliant doctors here doing cutting-edge work. Now we’re developing a support team that will match that with a cutting-edge approach to customer service.”

— Franklin Crawford

‘Hospitality isn’t limited to a particular industry,’ says Paddy, whose department is offering patient amenities like pagers, coffee, and Sudoku.

Customer Service: Neurological Surgery administrator Richard Paddy (right) confers with Colin Nash, a master’s student who spent his summer researching ways to improve the patient experience.

nicians. The manual was created by four students in the Sloan Program, which offers training in health-care delivery and financing through course work and practical experience; graduates receive a master’s degree in health administration.

Student Colin Nash is spending his summer working on the department’s customer service program. His role is to take the hospitality effort to the next level, collecting data to create performance guidelines for clinicians. Much of his time will be spent interviewing medical staff, with a focus on time management. “Part of the dissatisfaction among patients is the amount of time spent in waiting rooms and exam rooms,” Paddy says. “We need to evaluate where some of our lag times are.”
Modern imaging technologies have given physicians a fantastically detailed look inside the human body—but a single CT scan can generate as many as 700 views, so radiologists’ workloads have increased exponentially since the X-ray’s heyday. Parsing all those images not only takes its toll on their time, but on their bodies as well: constant scrolling of the mouse at a conventional workstation can lead to repetitive stress injuries like carpal tunnel syndrome.

Now, a team of Weill Cornell radiologists is exploring a better way to interface physician and computer—a system familiar to fans of virtual bowling and golf. Working with Michael Brown, PhD, and Lu Zheng from the School of Computing at the National University of Singapore, the three—George Shih, MD, Matthew Amans, MD, and Cliff Yeh, MD, all of whom studied engineering as undergrads—have adapted the controller for the Nintendo Wii video game system to replace the conventional keyboard and mouse. “We were impressed with how incredible a device the Wii is,” Yeh says. “It can imitate your movements so exactly. So we did a little research and found out it’s easy to program the Wii—it doesn’t take any proprietary software.”

This isn’t the first time the Wii and medicine have crossed paths: physical therapists at NewYork-Presbyterian Hospital and elsewhere have embraced it as a rehab device for burn patients, and the Wii Fit program has become a popular way to ease into exercise. Under the system devised by Shih and his colleagues, radiologists use the controller (known as the “WiiMote”) to scroll through images with a flick of a wrist, as the device senses movements via the same accelerometer technology that allows players to hit a virtual home run or play Tomb Raider. “Using a mouse requires constant motion—to scroll through a data set you have to keep moving it, or keep moving your finger on the wheel,” Shih says. “Using our interface, you can essentially scroll through the images without any movement, because it’s based on hand tilt. Once your hand is tilted, the images keep going.” The system also unshackles radiologists from the desktop, allowing easier and more interactive specialty training; attendings and residents can just hand the WiiMote around a conference room or lecture hall. “We polled the residents who used our device and got very positive feedback,” Amans says. “They felt that this added to their learning ability, that it was a better simulation of daily work.”

In the spirit of “doing no harm,” Amans says, the researchers did a study in which radiologists used the WiiMote to reinterpret scans they had viewed a year earlier with a conventional workstation, and found that their accuracy remained “very high.” The trio reported their initial results at a major radiology meeting in Boston in May and are currently preparing the work for publication. Meanwhile, their studies of the Wii’s value as an interface and teaching tool are ongoing—as is their gusto for the Nintendo system in its recreational form. “I’m definitely a fan,” says Yeh, who has a Wii at home. “I like the tennis game a lot. Being able to use real movements to control things on the screen is pretty neat.”

— Beth Saulnier
The Envelope, Please
Win a contest, get a colonoscopy

Broadway diva Patti LuPone is sitting in a hospital bed, yelling into her cell phone. “I said ‘Botox,’ she shrieks, “not ‘buttocks’!” The ad is a public service announcement for a contest with an unlikely prize: a complimentary colonoscopy, performed by Manhattan gastroenterologist Paul Miskovitz, MD ’75. “Win the CBS Cares Colonoscopy Sweepstakes,” a voiceover declares. “We’ll treat you like a star!”

Miskovitz—the co-author of two general-audience books, What to Do If You Get Colon Cancer and The Doctor’s Guide to Gastrointestinal Health—is a consultant for CBS Cares, offering expert advice on the network’s public service website. The contest, which ended April 30 and drew more than 25,000 entries, aimed to raise awareness about screening for colorectal cancer. “CBS thought it should not be talked about in hushed tones,” Miskovitz says. “When you take a medical topic and turn it into humor, you can reach more people and break down barriers.”

The network tested the waters with two December PSAs in which women were encouraged to get the men in their lives screened for prostate cancer. (“This Hanukkah,” said one, “give the gift of a kosher prostate.”) The colonoscopy sweepstakes, launched in February, was open to U.S. residents aged forty to seventy-nine who are free of medical conditions that would preclude the procedure, which must be scheduled by the end of 2009. “It will be a screening exam that’s appropriate for them—their records will be reviewed and their doctor will make a referral,” Miskovitz says. “We didn’t want this to serve as a substitute for general medical care.”

In addition to the test, the prize includes roundtrip airfare and three nights in a Park Avenue hotel. To protect patient privacy, the randomly chosen winner will not be announced by the network. “No one’s looking for someone to become the poster child for colonoscopy,” Miskovitz says. “There won’t be TV cameras at his or her colonoscopy. It’s not ‘American Idol.’”

— Beth Saulnier

Politically Aware
Grad’s organization aims to spark MD activism

With health care a key element of President Obama’s domestic agenda, medicine is back in the national dialogue. But one voice is notably absent, says Michael Steiner, MD ’81. “Physicians comprise a small and relatively weak lobby in this country when it comes to health care,” says Steiner, an ophthalmologist with a solo practice in Washington state. He notes that although many doctors have strong opinions on the subject, they’ve rarely had venues in which to voice them; in fact, some feel ethically obligated to remain above the political fray. But Steiner believes that this lack of engagement has allowed other stakeholders—insurance companies, drug makers, government agencies—to dictate health-care policy.

To give physicians a greater role in the debate, last year Steiner created Community of Doctors. The organization’s initial mission is to foster communication through online social networking; eventually, he hopes to have a large enough membership to take their ideas to policy-makers. “The only way doctors can have any input is in some kind of nationwide organization where they’re asked, ‘What do you think and what should we should do?’” says Steiner, who earned an undergraduate degree from the Ithaca campus in 1977.

One of Steiner’s first orders of business was to survey the nascent organization’s few hundred members; the results surprised him. Almost 40 percent said that the cost of malpractice insurance was one of the most pressing issues in health care; more than half said that legal concerns cause them to practice defensive medicine or choose a course of treatment that may not be in the patient’s best interest. One in five said that last year’s reduction in Medicare payments has “persuaded me to reduce in number or eliminate the Medicare portion of my practice,” and a third said that without government intervention they would not treat uninsured patients without regard for reimbursement. More than 60 percent said that doctors should be able to organize for stronger negotiating power with insurers and government regulatory agencies, while more than 80 percent favored collective bargaining rights.

While still in medical school, many future doctors become advocates outside the classroom through organizations like Physicians for Human Rights. With Community of Doctors, Steiner is hoping to reignite that sense of activism among practicing physicians. In the survey, almost 90 percent of respondents said they wanted to get politically active in some way. “That’s tremendous,” he says. “If the word ‘change’ is on everyone’s lips and we can get doctors on the same playing field, then maybe we can actually change the direction of health care.”

— Gabriel Miller
Practice makes perfect: Clinical Skills Center Director Yoon Kang, MD, watches through a one-way mirror as fourth-year student Ashkan Abbey examines a standardized patient, a teenager who reports having shortness of breath. One of the control room’s computer screens is reflected in the window.
The middle-aged woman sits nervously in a chair beside her young doctor’s desk as he reads the results of her recent test. She has come to his office after being alerted of an abnormal result. Her fear and anxiety are palpable. “What does this mean?” she asks, twisting a tissue in her lap.

“I’m not sure,” her doctor says. “It could be benign or there might be a more serious change. They’ll need to take more views and probably want a biopsy.”

He asks if she has lately experienced pain, fatigue, chills, sweats, or fever.

“No,” the woman says firmly.

“Diarrhea, nausea, vomiting?”

“No, no, no. Nothing at all out of the ordinary.”

She pauses for what seems like a very long minute. “It’s probably cancer, right?” Her voice breaks as she begins to cry.

Gently, the doctor tries to reassure her. “It could be inflammation, a fibrocystic change, or a calcification. You might want to consider a support group to help you through this.”

Suddenly, a voice over a speaker in the exam room alerts the “doctor”—fourth-year medical student Ashkan Abbey—that five minutes are left in the session. In the brief remaining time,
Abbey completes his interview with the “patient” (actually an actor in the role of a standardized patient, or “SP”). When he leaves, the SP, who has memorized a carefully crafted script meant to prepare future doctors for interacting with patients, gets ready to deliver her lines to the next student.

The encounter is part of an Observed Structured Clinical Exercise at Weill Cornell’s Clinical Skills Center during a day of preparation for the Step 2 Clinical Skills Exam of the United States Medical Licensing Exam (USMLE). This was added to the USMLE in 2004 based largely on surveys reporting that people often select a doctor on the strength of his or her clinical skills. “It sounds elementary, but teaching and assessing clinical skills in a structured way has not always been emphasized in undergraduate medical education,” says the Center’s director, Yoon Kang, MD. “Yet history taking and the physical exam remain the cornerstones of good patient care.”

On this day in February, Abbey and three MD-PhD students will each proceed through a series of ten cases, spending fifteen minutes on each case to take a history and perform a physical exam on an SP while being observed by Kang.

The SPs are the linchpins of the Center, a 10,000-square-foot teaching facility on the tenth floor of the Weill Greenberg Center on York Avenue, which opened in 2007. They are selected and trained by Kang and Anne Connolly, the Center’s session coordinator and a former actor who spent a decade working as an SP at medical schools in the metro New York area. One of the main attributes Kang and Connolly look for in potential SPs—who are paid $25 per hour—is a genuine interest in teaching. “Our SPs are educators at heart,” Kang says. “To work with us, their motivation must be creating realistic and effective opportunities for our students to practice clinical skills.” She stresses that it isn’t an easy gig; for a majority of sessions, they must train and role-play for about two hours, plus memorize long checklists and learn how to give feedback about patient-physician communication.

In order to assess the progression of their clinical skills over time in a systematic way, Weill Cornell medical students start their simulated encounters shortly after matriculating. For example, one of the first-year programs is designed to give them hands-on experience as a first responder in an emergency. In one scenario, a student finds that a classmate, portrayed by an SP, has passed out in a dorm room; the student must decide what to do. During the first and second years, students take complete medical histories and conduct physical exams on SPs. The SPs then provide immediate feedback on their performance: Did the student greet me and introduce him- or herself? Call me by name? Use appropriate eye contact and open body language? Show interest and respect? Listen carefully? Use appropriate facial expressions and tone of voice? Third-year clinical skills programming, which will take into account the scheduling requirements of students during their clerkship year, is currently being developed.
Before starting their encounters, Ashkan Abbey and his classmates gather in the Skills Center’s conference room, where Kang briefs them. “What you are about to experience is similar to what’s done during flight training for pilots,” she tells them. “You’ll learn by being placed in a situation that is as realistic as possible.” She offers some basic tips: “Remember to knock on the door before entering the room and always introduce yourself. Remember your role on the patient care team, and be sure to clarify the patient’s expectations for the encounter. Summarize your findings and next steps, and address the patient’s understanding and questions before leaving.”

Kang explains that audiovisual equipment will record the interactions and digitally stream images to a database for later analysis; one-way mirrors will allow her and other faculty to observe without disturbing the sessions. Students are also informed that when five minutes remain in each encounter, an AV technician will alert them with an overhead announcement. Just as on the actual USMLE skills test, after each case each student will then have ten minutes to write up a patient note, which includes diagnoses and recommendations.

Thus prepped, the students head to the exam rooms. Though all of them have spent the year in clinical rotations, the patient encounters they are about to have are their first timed experiences. Tension fills the air as they depart with a mandate to conduct thorough exams under time constraints—while being observed, recorded, and evaluated. The scores Kang provides afterward will identify strengths and weaknesses in the students’ ability to gather information, perform exams, and communicate findings to patients and colleagues—skills that will be tested on the actual licensing exam and are essential to good patient care.

Abbey knocks on the door of his first patient, enters, and introduces himself to a soft-spoken man in his early twenties. A college student, he tells Abbey that on the bus the day before he suddenly started feeling uncomfortably short of breath; he rushed to an emergency room, but the doctors couldn’t find anything wrong. Abbey begins the exam—listening to his chest, lungs, abdomen. He asks about drinking, smoking, and drugs. The patient tells him he doesn’t smoke or take drugs and has a few drinks on weekends. Afterward, Abbey sits beside his patient to present his findings. “I didn’t find anything on your physical exam,” he says, explaining they may need to consult a specialist.
From here it’s immediately on to the next room, where an overweight middle-aged man describes his acute abdominal pain and vomiting. The man seems irritable, almost angry, seeking immediate answers. “I can’t keep any food down, Doc,” he says. The SP tells Abbey that he drinks three to four beers and smokes about a pack and a half of cigarettes a day. Abbey gently palpates his abdomen; he winces.

“Is the pain constant?”
“Yes, it started after lunch yesterday,” he says, breathing heavily.

“Have you ever been told that you have acid reflux?”
“No.”
“Have you noticed blood in your stool?”
“No.”

After Abbey concludes the physical, he tells the patient he thinks he may be suffering from either bacterial or viral gastroenteritis. “You might also be developing an ulcer, so we’ll need to run a battery of tests,” he tells the man, who is clearly relieved that his doctor can help him.

By the end of the afternoon, Abbey and his fellow students will
have met SPs whose range of symptoms will challenge their diagnostic abilities. What to make of the middle-aged African American woman who has lost ten pounds in two months? Or the elderly man with a history of high blood pressure, whose body had gone partially numb a few hours earlier and briefly found himself unable to speak?

When their day of patient encounters ends, the four students—tired but clearly relieved to have finished—assemble in the conference room for Kang’s general feedback. Kang has spent the day moving non-stop—watching the encounters through the one-way mirrors or on her computer, which allows her to observe all the rooms at once or toggle among them. “Remember to use lay language,” she tells them. “Even terms that may seem basic to you—like EKG, CT, or ultrasound—may not be immediately clear to the patient. Try not to ask compound questions such as, ‘Do you drink, smoke, or take drugs?’ Ask each separately, otherwise you can’t be sure which question the patient is actually answering. And avoid leading questions, such as, ‘You didn’t have a fever, did you?’” Kang reminds the students to wash or sanitize their hands before and after each exam, to always listen through a complete breath cycle, and to keep the patient properly draped throughout the exam. “An important element of an effective clinical encounter is collecting history and physical exam information in a way that makes the patient feel comfortable,” Kang reminds them.

Abbey—who will spend a transitional year at Scripps Mercy Hospital in San Diego before his ophthalmology residency at Bascom Palmer Eye Institute in Miami—would go on to pass his actual clinical exam, which he took in Philadelphia in April. Because of the practice with the SPs, he says, “I went into the test with a strong sense of how to pace myself in this type of pressured situation. I was completely wiped out by the end, but I felt good.” Abbey notes that he learned the importance of strong clinical skills early—by observing his father, also an ophthalmologist. “I’ve always been struck by how he ‘reads’ a patient: are they nervous, angry, scared?” he says. “He treats each patient as a person.”

’ve always been struck by how he ‘reads’ a patient: are they nervous, angry, scared?” he says. “He treats each patient as a person.”
Biomedical images come to life in vivid 3-D

Photographs by Amelia Panico

On the thirteenth floor of the Weill Greenberg Center is a spot that seems to have been teleported straight from “Star Trek.” Using the latest imaging and computer graphics technologies, the Medical College’s 3-D Immersive Visualization room allows researchers and clinicians—wearing 3-D glasses and wielding a remote-control device called a “wand”—to view the human body with startling depth and detail. The images surround the viewer, who can change perspectives with a flick of the wrist—enlarging portions of an MRI or other study, changing views, exploring different layers.

The facility is what’s known as a CAVE, for computer-assisted virtual environment; there’s also one in the Center for Advanced Computing on the Ithaca campus. Weill Cornell’s is part of the Cofrin Center for Biomedical Information in the HRH Prince Alwaleed Bin Talal Bin Abdulaziz Alsaud Institute for Computational Biomedicine. “The use of this powerful new tool will increase quickly in all aspects of biomedical research in the College, and will allow us to attract the best and brightest minds in the world,” says institute director Harel Weinstein, DSc, the Upson Professor of Physiology and Biophysics. “It will provide unique support for Weill Cornell’s mission of medical education, clinical excellence, and scientific research.”
Magic Eye
Third dimension: Vanessa Borcherding (above), a systems administrator in the Department of Physiology and Biophysics, views the inside of a skull; the sinuses can be seen at left. Top right: Gracia explores an MRI image in which the parts of the brain are depicted in contrasting colors for a study on the neurological development of babies born addicted to crack cocaine. Bottom right: A visitor sporting the facility’s 3-D goggles views a bright pink image of the brain.
Veteran’s Affairs

A Weill Cornell surgery professor recalls his two tours of duty in Iraq, where more than 35,000 American soldiers have been killed or wounded.

By Beth Saulnier

After attending Temple University Medical School on an Army scholarship and training as a transplant surgeon, David Leeser, MD, practiced at Walter Reed Army Medical Center and did two six-month tours in Iraq. After a relatively quiet stint running a small Army hospital in the southern part of the country, he saw heavy casualties as a combat surgeon in Baghdad—attaining the rank of lieutenant colonel and earning a Bronze Star for service.
Weill Cornell Medicine: What goes through your mind when you see Iraq war casualties on the nightly news?

David Leeser: I think about how easy it is not to think about them—in our daily lives not to realize that there are still people there. The thing that is most concerning to me is that when we went into this war, there were a lot of people who were adamantly for military action, yet if you asked them, “Would you send your son, daughter, or grandchild?” they would say, “No way.” And that just doesn’t cut it. Military action leads to gruesome reality. Some people said to me, “I believe in this war, but I wish you didn’t have to go.” Well, it doesn’t work that way. We have a responsibility if we’re going to live in this republic that is the United States.

WCM: Did your experiences in Iraq change your views about the conflict?

DL: People would ask me when I was in uniform, “What do you think of the war?” I would say, “It doesn’t matter.” I never thought about it in those terms, because when you are in uniform your thoughts are: “This is my job. This is what I said I would do. I have to go and do it. Leave the policy to the elected officials.” That is an
important aspect of our democracy that is greatly underappreciated.

**WCM: When was your first tour of duty?**

**DL:** I was there from December 2004 through June 2005, and we weren’t very busy because most of the fighting was up in Baghdad and northern and western Iraq. It’d been six months since they’d gotten much direct fire. It was a big airbase—the perimeter road was nine miles—and it was pretty safe, to the point where we didn’t necessarily have to wear body armor. Being deployed and being away from your family is not the most joyful experience, but the biggest thing we had to worry about was boredom. We did twenty or thirty surgical cases in six months.

**WCM: What did you do to pass the time?**

**DL:** We’d go running, go to the gym, watched a lot of movies. You couldn’t drink, so we’d smoke a cigar almost every night—and I’m not a smoker. Although I didn’t like being bored, I was thankful for it, because it meant that people weren’t getting blown apart by improvised explosive devices.

**WCM: How often were you able to contact your family?**

**DL:** I always had access to e-mail. The first tour, I usually called once a week. The second time, in Baghdad, the government had a carrier set up a cell network on a New York interchange. They gave us phones—that’s how they got us when they had wounded coming in—so my wife could call me directly. Usually we’d talk a couple of times a week. One time one of the nurses picked up, because I was scrubbed in. I said, “Tell her I’ve got a case and I’m going to be late for dinner.”

**WCM: Did you really run the Boston Marathon—in Iraq?**

**DL:** The first time I was there the recreation director for the post was from Massachusetts, so he called the Boston Athletic Association and said, “Can we set up a running of the marathon in Iraq on the same day? It’s on Patriots’ Day [the third Monday in April] and these are deployed guys.” Two Air Force guys ran it in full gear—they had seventy-pound backpacks on and did it in six hours.

**WCM: What was it like to land in Baghdad for your second tour?**

**DL:** When landing, you descend quickly from 10,000 feet in a spiral to avoid being down low enough where someone could shoot a shoulder-fired rocket at you. The airport is about a half-hour drive from the Green Zone. They have armored buses; they look like Winnebagos, but they’re all black and have half-inch-thick steel and bulletproof glass. They put a gunship in front of you and one behind, basically a Humvee with a .50 caliber automatic rifle on top. You can’t help but be a little keyed up, even though it’s probably very safe.

**WCM: What was life like inside the Green Zone?**

**DL:** I have a picture of something someone scrawled on the side of a warehouse: “Welcome to Groundhog Day.” And it’s true—you can’t tell the difference from one day to the next. Mondays are the same as Fridays are the same as Tuesdays. You lose track. Both times it was like that—you’re there and then the person replacing you shows up and you’re gone. When you’re home, it’s like you’d stepped off an escalator and then you got back on, but everyone else has moved forward. I think that’s part of the reason why a lot of guys have problems. You’ve been through all these horrors and everyone else is doing their thing.

**WCM: How heavy were the casualties during your...**
time in Baghdad?

DL: It was during the push into Sadr City, and the forces were getting the daylights beat out of them. We had some of the busiest days in the history of that combat support hospital. One day we had seven tables running with major traumas. During my residency at Temple University, a busy night would be thirteen or fourteen level-one traumas; of those, maybe two or three would go to the OR. There were days when we had six tables going with major injuries and six cases waiting to go to the OR. You could have a guy with a tib-fib fracture waiting four hours. There were times when we had thirty-five casualties show up at once. I was there the day a cement truck full of explosives pulled up next to an Army base and blew up right near a shower. We had twenty-five soldiers come in wearing shorts and T-shirts. There was all kinds of trauma, penetrating trauma, just everything.

WCM: How well equipped were you?

DL: We didn’t have an MRI, but we had a CT scanner. We could do
interventional-based therapy. If we wanted to do an angiogram, we could since we had fluoroscopy. Almost anything you do at Weill Cornell you could probably do in Baghdad. There wasn’t much I could have asked for that I didn’t have.

WCM: How difficult was it to live and work in a war zone?

DL: As surgeons, we’re probably more able to deal with it because at least in our training, we’ve seen trauma. Nineteen-year-old medics have never seen anything like this. When medical units got close to the end of their deployments in busy areas, you could tell they were starting to lose it. Anybody that tells you it doesn’t get to them is fooling themselves. It’s very stressful, and the family network you have to help you maintain your sanity is 5,000 miles away. Unless you’re a Mormon, your language becomes extremely robust.

WCM: Were you literally operating while bombs went off around you?

DL: One night I was doing a Whipple, which is removing the head of the pancreas, and a mortar exploded across the street from the hospital. It shook the whole building. Every time the Iraqi national soccer team won, people would shoot weapons into the air. One guy was walking to the laundry and a bullet lodged in his shoulder. We used to go up on the roof of our house in the evenings, and one night it sounded like a shooting gallery—“ding, ding, ding.” Stuff like that happens, and it freaks you out. You almost don’t realize how emotionally trying it is until you get home.

WCM: Was it harder to transition back to civilian life after your second deployment?

DL: Absolutely. I would say it took six months to a year for me to settle back into where and who I was. The first thing is that when you’re in Iraq, there’s always noise. All the electricity comes from diesel generators— you hear them twenty-four hours a day. There are helicopters coming in and out all the time. So you’re used to the noise and then you’re in the quiet. And the visual stimulation of being back is somewhat overwhelming. In Iraq there isn’t as much light—street signs, billboards. All that commercialism comes roaring back.

WCM: Are there any fictional depictions of war that come close to capturing what you experienced?

DL: The movie M*A*S*H isn’t that far off from the crazy things that go on. There are certain parts of it that ring true. I had a thirteen-year-old girl whose house had been hit by a mortar. I kept her feet on for four or five days, then I had to cut them off. They became infected, and she ended up having a bilateral below-the-knee amputation. That puts you in a funk. Then you have your wins. We had a five-year-old who was shot in the abdomen in the attempted assassination of her mother. We got her back together, she went home, and did great.

WCM: What other experiences have stuck with you?

DL: When a soldier is killed, the flight that takes them out is called an angel flight. A black helicopter lands and people come out and salute as the body is moved from the hospital to the chopper. That’s quite moving. And there’s a story I tell about this kid who was days from his eighteenth birthday—an IED had gone off and he had a broken
leg. Whenever this particular unit was hit, within fifteen minutes of the casualties hitting the ER there was always a second helicopter carrying their commanding general, who would give the guys their Purple Hearts. This one kid was scared to death, and the general comes in and kisses him on the forehead and wipes the tears out of his eyes and whispers in his ear, “You’re going to be OK. You’re going home. You’ve done a great thing.” I’m a Quaker, so I’m not necessarily the most militant person, but you have to respect what some of these enlisted personnel and officers do. They’re amazing people.

WCM: You’re a Quaker? Did that make it especially tough to serve in the military?

DL: In some ways yes, in other ways no. In World War II, there were a lot of Quakers who went in as medics and went onto the battlefield without weapons to carry guys off. My dad was in the Navy. It’s not as uncommon as you might think. I also went as a non-combatant, so there was not a big conflict with my desire not to take part in armed conflict.

WCM: Could you be called back into Army service?

DL: I’m retired and have fulfilled my requirement. I was on five years of active duty total, and when I was doing my residency I was in active ready reserve. Whenever you sign on the dotted line, you have to fulfill eight years in some manner, active or reserve. I resigned my commission when I got out so there was no way they could ever call me back. My daughter was adamant that I never go away again. They can’t even draft me, because I’ve fulfilled my Selective Service requirement.

WCM: How do you think your time in Iraq changed you?

DL: The biggest thing is that I don’t get as upset with peripheral things. It really brings home what’s important. It’s easy to say, “I don’t make enough money, I don’t do this, I don’t do that.” Or I’ll be in the elevator and people say, “Oh, this is so slow,” and I want to say, “You know, there are guys in Iraq right now who’d love to be in this elevator.” •

‘As surgeons, we’re probably more able to deal with it because at least in our training, we’ve seen trauma. Nineteen-year-old medics have never seen anything like this. Anybody that tells you it doesn’t get to them is fooling themselves.’

Top brass: Leeser shakes hands with Lieutenant General Kevin Kiley, MD, then Surgeon General of the Army.
Dear fellow alumni:

I cannot believe that these past three months have gone by so quickly and summer is already here. The Alumni Association has been busy, and I would like to report to you about a number of activities.

First, the Class of 2009 has added 109 new members to our association. The festivities started with graduation at Weill Cornell’s Qatar campus, and I was fortunate to be invited to attend with President David Skorton and Dean Antonio Gotto. There was a grand ceremony at Education City with the other academic institutions in Doha, followed by a private ceremony for Weill Cornell. I had the opportunity to welcome the seventeen new MDs of the Qatar branch’s second graduating class to the Alumni Association. They are proud to be Cornell graduates and eager to join the association.

Commencement for the New York campus took place at Carnegie Hall, where two distinguished alumni were honored for their accomplishments. John Ross Jr., MD ’55, was lauded by the Alumni Association for his contributions as an educator, researcher, and physician in the area of cardiology. Colonel Geoffrey Ling, MD, who earned his PhD from Weill Cornell in 1983, received the Graduate School’s alumni award of distinction for his work in developing advanced prosthetic limbs for soldiers and his research on traumatic brain injury caused by explosion. Both awardees were honored at a special dinner hosted by the Alumni Association.

Our graduates will soon be arriving at their new training posts, and some of them may be heading to your part of the country. For instance, fifteen have matched to residency programs in the Boston area. If you would like to find out whether any new graduates are coming to your area, please contact the alumni office. I am sure they would be happy to hear from you.

The Alumni Association held a reception in Boston on June 16, with more than seventy alumni and friends attending. They had the opportunity to meet Dean Gotto and hear about new activities and plans for Weill Cornell. Dean Gotto spoke about the new research building that will go up on East 69th Street, doubling the research space at the Medical College. Many of the attendees told me that they enjoyed the event and would like to see such local alumni gatherings more often. If you would like to plan a similar meeting in your area, please contact the alumni office.

I was extremely touched by the speech that Stuart Mushlin, MD ’73, gave in Boston. He shared his personal thoughts about what his education has meant to him and how he has always tried to give whatever he can to Weill Cornell. I have often thought about how my education has provided me with such a rich and fulfilling career, and I am glad that I can help teach the next generation of medical students. I hope that when you think back to your days at Weill Cornell, you will remember the importance of contributing to the scholarship funds so others can have the same opportunity.

With warmest regards,

Hazel H. Szeto, MD ’77, PhD ’77
President, CUWMC Alumni Association

hhszeto@alumni.med.cornell.edu
The graduates: Celebrants at the Commencement ceremony in Carnegie Hall included some of the new MDs from the Qatar branch’s Class of 2009. From left are Heba Haddad, Noor Suleiman, Imran Farooq, and Amira El Sherif.

**1950s**

Eugene J. Segre, BA ’53, MD ’56: “NPR recently interviewed our classmate Jim Ketchum, MD ’56, about his book Chemical Warfare Secrets Almost Forgotten, which describes his many unusual experiences with the U.S. Army’s Chemical Center. They ran quite a program trying to develop incapacitating drugs. The interview brought back memories of physiology labs and prompted me to chase him down through the Internet. I discovered that we both live in the greater San Francisco Bay Area. I contacted him and organized a get-together for Jim, Ivan Gendzel ’52, MD ’56, and our wives at my home in San Francisco. I hadn’t seen Jim since 1956, and it was great fun reminiscing about our days on York Avenue.”

**1970s**

Robert Laureno ’67, MD ’71, reports that Oxford University Press has published his book about Raymond Adams, the pioneering American neurologist. Raymond Adams: A Life of Mind and Muscle tells the story of Dr. Adams’s contributions to neurology, neuropathology, psychiatry, internal medicine, pediatrics, and psychology. Dr. Laureno is chairman of the Department of Neurology of the Washington Hospital Center. He is professor of neurology at both Georgetown University and George Washington University. His special research interests include the neurology of alcoholism, nutritional disorders of the nervous system, and the hemorrhagic transformation of embolic cerebral infarctions.

Gar LaSalle, MD ’73, of Vashon, WA, is the chief medical officer of TeamHealth. Recently he has been developing a patient safety organization. He says he still remembers Dr. Ben Kean’s lectures. After hours, he is a sculptor and filmmaker. Earlier this year he received CINE Golden Eagle awards for producing and directing two films about emergency department violence, Big Orange and The Takedown.

James F. Caravelli, MD ’74, was inducted as a fellow in the American College of Radiology.
Carol McIntosh ‘83, MD ‘87, was made an Officer of the Most Excellent Order of the British Empire.

By degrees: Carol Storey-Johnson, senior associate dean of education, distributes diplomas at Commencement.

Douglas J. Quint, MD ’82, was inducted as a fellow in the American College of Radiology at the 86th annual meeting and chapter leadership conference in Washington, DC. He is professor of neuroradiology and MRI at the University of Michigan Health System in Ann Arbor, MI.

John Fontanetta, MD ‘83, is the chairman of emergency medicine at Clara Maass Medical Center. He is the vice president of research and development for Emergency Medical Associates and chief medical officer of EDIMS and Proven Healthcare Solutions.

Carol McIntosh ‘83, MD ‘87, was an Officer of the Most Excellent Order of the British Empire (OBE) by Queen Elizabeth II. Dr. McIntosh is the medical director at Carriacou Health Services (CHS) in Carriacou, Grenada, which she formed with Leo Joseph and Dr. Joseph McAuley in 2003. CHS began a free breast cancer screening program in 2008. Dr. McIntosh works with students as a mentor, lecturer, and advisor through the Black Biomedical and Technical Association of Cornell University.

'38 BA, MD '41—Preston S. Weadon of Kalamazoo, MI, formerly of Hendersonville, NC, and Shelburne, VT, May 20, 2009; neurosurgeon; introduced new procedures in cerebral arteriography, surgery for cerebral aneurysms, carotid endarterectomy, and shunts for hydrocephalus; staff member of hospitals in southwest Michigan; veteran, Army Medical Corps; active in community and professional affairs. Phi Kappa Psi.

'43 MD—Claude A. Burnett Jr. of Seal Harbor, ME, date unknown.


'49 BA, MD '53—William H. Hover of Missoula, MT, and Sarasota, FL, formerly of Montclair, NJ, December 5, 2008; associate medical director, Prudential Insurance; internist; consultant; active in community, professional, religious, and alumni affairs. Delta Phi.

'49 BA, MD '53—Milton N. Luria of Rochester, NY, April 9, 2008; physician.

'53 MD—David E. Sobel of Scarsdale, NY, January 1, 2009; psychiatrist; director, Family Study Unit, New York State Psychiatric Inst.; instructor, Dept. of Psychiatry, Columbia U.

College of Physicians and Surgeons.

'55 MD—Peter T. Knoepfler of Bellevue, WA, May 4, 2009; psychiatrist; clinical professor of psychiatry, University of Washington Medical School; affiliated with Overlake Hospital; worked at the Menninger Foundation; professor, University of Utah; pioneer in leading therapy groups; studied with Masters and Johnson; one of the first certified sex therapists in the United States; Peace Corps administrator; veteran; fluent in seven languages; musician; active in civic, community, and professional affairs.

'53 BA, MD '57—Joyce C. Shaver-Hitchings of Chapel Hill, NC, formerly of New York City, April 3, 2009; devoted her practice to the treatment of alcoholism and drug addiction; affiliated with U. of North Carolina, Chapel Hill, Graduate and Medical School; co-founder, UNC-CH Shaver-Hitchings Scholarship Fund; clinical physician; endocrinology researcher; conducted research at Bellevue and Roosevelt hospitals; pianist; widow of Nobel laureate Dr. George H. Hitchings; active in community and professional affairs. Kappa Kappa Gamma.

'64 MD—Karl G. Mangold of Diablo, CA, June 3, 2009; emergency room physician, San Leandro Memorial Hospital; formed Fischer Mangold, a medical group of emergency physicians; lieutenant commander, U. Public Health Service, U.S. Coast Guard training base in Alameda, CA; trained as flight surgeon at the U.S. Army aviation school, Fort Rucker, AL, and with the U.S. Navy in Pensacola, FL; participated in U.S. Coast Guard search and rescue missions; admiral's physician in the Pacific, the Orient, and Vietnam; attended the U. Army War College; veteran; later earned an MBA from Pepperdine University and master’s in management from JFK University; former president, American College of Emergency Physicians; recipient of the John G. Wieggenstein Meritorious Achievement Award from the American College of Emergency Medicine; lecturer; writer; consultant; active in civic, community, and professional affairs.

Alexander G. Bearn, MD, of Philadelphia, PA, May 15, 2009; chairman emeritus of the Dept. of Medicine, Weill Cornell Medical College; former physician-in-chief, NewYork-Presbyterian Hospital/Weill Cornell Medical Center; authority on the genetics of rare metabolic diseases; founded the first human genetics laboratory at Weill Cornell; researched Wilson’s disease, which causes an excess of copper to accumulate in vital organs; helped to create a joint MD-PhD program at Weill Cornell and the Rockefeller University; senior vice president for medical and scientific affairs, international division of Merck & Co.; former trustee, Howard Hughes Medical Institute; author; active in professional affairs.
near the entrance to the Greenberg Pavilion at NewYork-Presbyterian Hospital/Weill Cornell Medical Center is an unassuming tree whose roots stretch back to the dawn of medicine. The Oriental plane came from a seedling of the so-called Hippocrates tree on the Greek island of Kos; according to legend, it was in its shade that the ancient physician instructed his students circa 400 B.C. Weill Cornell is one of many medical schools around the world that have received cuttings or seedlings from the original, which is so old and enormous that its branches are propped up by scaffolding.

Actually, the present tree is the Medical College’s second. Its first was procured by the late surgery professor and antismoking activist William Cahan, MD, during a visit to Kos in 1966. The tree was originally planted near a pathway leading to the Griffis Faculty Club; in the Seventies, when the joint medical and nursing commencement was held outdoors, Cahan asked the dean to have it moved a short distance so that it “abuts upon the area where the medical students receive their degrees.” In 1978 it was transplanted and dedicated in memory of Greek-born anatomy professor George Papanicolaou, MD, inventor of the Pap smear, and blessed by an archbishop of the Greek Orthodox Church. Though Cahan envisioned giving each graduate a commemorative leaf, Medical College archivist James Gehrlich reports that there is “no oral, written, or pictorial evidence” that ever happened.

But in the Nineties, the thirty-foot tree was felled. As the New Yorker reported in a 1997 Talk of the Town piece: “One day four or five years ago, Dr. Cahan sends his secretary to the hospital to deliver some X-rays, and she comes back shaken, saying, ‘The tree’s gone.’ Construction. Somebody cut down the tree. The hospital explains, ‘Doc, we looked into moving the thing and it would cost twenty thousand. We figured it’s cheaper . . .’ Dr. Cahan is devastated.”

Another sapling was procured through Cahan’s friends at the Hellenic Medical Society, arriving on campus after a pit stop at the New York Botanical Garden. It was planted in its present location on October 23, 1997, again in honor of Papanicolaou. “I think it’s wonderful,” says professor emeritus of cell and developmental biology Donald Fischman, MD ’61, who attended the dedication ceremony. “Most people aren’t aware of it, but it’s quite symbolic. It links the Medical College to Papanicolaou and to Greece, the source of modern medicine.”
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Control room: In Weill Cornell’s Clinical Skills Center, students see patients in realistic exam rooms as cameras record their performance for later study. The facility, located in the Weill Greenberg Center on York Avenue, helps prepare students for the new clinical skills portion of the U.S. Medical Licensing Exam. For a look at one student’s whirlwind day seeing ten “patients”—actually professional actors who meticulously prepare for their roles—see page 28.