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This interactive version of the magazine resides at www.einstein.yu.edu/epubs/einstein/summerfall2011 and adds voices and moving images to the text and pictures you now hold in your hands. You’ll be able to view event coverage, hear interviews with Einstein faculty members, see how Einstein and Montefiore researchers have worked to defeat AIDS ... and more.

If you like the status quo, don’t worry: We are continuing to publish Einstein magazine in print form. But do please give our alternative format a try as well. And let us know what you think about it by sending us a note at letters@einstein.yu.edu.

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A Message from the Dean

T he cover story of this issue of *Einstein* magazine commemorates the 30th anniversary of the first reports of cases of AIDS. The story describes key figures at Einstein and Montefiore who confronted the early stages of the epidemic at one of its epicenters—the Bronx—as well as Einstein investigators who are responding to the challenges that AIDS still poses.

I vividly recall the excitement at a press conference in 1984, while I was at the National Institutes of Health, when Health and Human Services Secretary Margaret Heckler announced the discovery of the human immunodeficiency virus (HIV) and predicted that a vaccine would be available within a couple of years. Nearly 30 years later, we still lack an effective vaccine—the critical requirement for halting the epidemic. Still, enormous progress has been made, including the advent of highly active antiretroviral therapy.

When I directed the National Institute of Diabetes and Digestive and Kidney Diseases, I wasn’t familiar with key aspects of the history of AIDS. I made up for this deficiency in my education after coming to Einstein in 2006. One of my most memorable early experiences was a symposium marking the 25th anniversary of AIDS that featured Arye Rubinstein, M.D., the Einstein pediatrician who diagnosed one of the first cases of pediatric AIDS. A film documented Rubinstein’s extraordinary work in caring for children with AIDS, at a time of mounting hysteria driven by ignorance of how the virus was spread. A clip in the film showing Nancy Reagan—her hand avoiding physical contact while meeting an HIV-infected child—spoke volumes.

But Rubinstein was not alone among Einstein physicians who distinguished themselves during that time. Peter Selwyn, Kathy Anastos, Ellie Schoenbaum and other pioneers did all they could to stem the tide of the epidemic.

Today, Einstein faculty members continue to work on therapies for curing AIDS and strategies for preventing it, for the benefit of patients in the Bronx and worldwide.

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ALLEN M. SPIEGEL, M.D.
The Marilyn and Stanley M. Katz Dean
Letters to the Editor

Thanks from a Faculty Member
As a relative newcomer to Einstein, I very much enjoy reading Einstein magazine. It’s well illustrated and engaging and helps me stay informed about what’s going on around campus. Einstein researchers are prolific, and it is difficult for all of us to keep up with the research findings that they generate. The magazine offers me a convenient way to learn about the achievements of my colleagues around the College of Medicine. The magazine also keeps me informed about research funding and philanthropic endeavors that contribute to the growth of our institution. Einstein’s community efforts and alumni news complete the picture. Keep up the good work!

Rubina Heptulla, M.D.
Division Chief
Pediatric Endocrinology
Professor, Pediatrics and Medicine
Albert Einstein College of Medicine
Bronx, NY

Hello, Dali!
I was one of the student musicians who entertained at a reception for Salvador Dali hosted by his friend Einstein professor Helmut Nathan, M.D., on the occasion of a show and sale of Dali’s artwork to raise funds for the medical school (“A Look Back,” Einstein, Winter/Spring 2011). I played the cello in a chamber music quartet (not visible in the photo you printed), and my recollection of that occasion might surprise you. For me, the real high of the evening was being on stage and playing the Haydn Quartet no. 104 with three other really good musicians, and being applauded by the very sophisticated audience of Einstein faculty and friends that had come to see Dali and his work.

Following the reception, we were introduced to Dali. He was grateful that we played for him and shook hands with all of us. I was not well schooled in art at the time; Dali’s work did not appeal to me very much then and is still not among my favorites. But what I most vividly recall was how ridiculous his cape and handlebar moustache looked. In retrospect, of course, I probably should have been in awe of the man. My wife, an artist and admirer of Dali’s work, certainly thinks so.

Sidney Sobel, M.D. ’61, FACR
Clinical Associate Professor of Radiation Oncology
University of Rochester School of Medicine and Dentistry
Rochester, NY

Social Media: Online at Einstein
Twitter, YouTube and other social media allow for almost instantaneous contact and information exchange. “It’s all about building community,” says Paul Moniz, Einstein’s director of communications and marketing.

Here’s how and where at Einstein:

Twitter: Einstein tweets multiple times every day (to 1,000 followers—and counting)! We also participate in Twitter chats. To follow Einstein’s Twitter feed, visit http://twitter.com/EinsteinMed.

YouTube: Einstein’s YouTube videos have been viewed 52,000 times! Check out www.youtube.com/user/EinsteinCollegeofMed.

iTunes: From this platform, you can stream and download Einstein videos, lectures and discussions to your computer or iPod/iPad. Visit www.einstein.yu.edu/home/mu_itunes.asp.

Einstein Multimedia Page: See all of Einstein’s audiovisual content in one place on Einstein’s dynamic multimedia page, which receives nearly 10,000 visits per month. Visit www.einstein.yu.edu/video.

LinkedIn: Einstein maintains a corporate profile on LinkedIn. Visit www.linkedin.com/companies/556031.

RSS: “Really Simple Syndication” delivers Web content directly to your desktop or browser. To get started, visit www.einstein.yu.edu/home/rss/news.xml.

Website: Updated daily, our easy-to-use website is www.einstein.yu.edu.
On Match Day 2011 last March, Brian Nishinaga anxiously opened an envelope that would direct his life for the next few years. He was ecstatic to learn that he was headed for an emergency medicine residency at New York–Presbyterian Hospital, the University Hospital of Columbia and Cornell—his first choice.

Brian was among 187 members of the Albert Einstein College of Medicine Class of 2011 who learned where their four years of hard work would lead them. Forty-three percent of them claimed residencies in primary care, which encompasses internal medicine, pediatrics and family medicine. That’s 4 percent higher than the national average and 3 percent higher than last year. The two next most popular placements were diagnostic radiology and emergency medicine, followed by obstetrics and gynecology, anesthesiology, surgery, ophthalmology, orthopedics and psychiatry. Einstein students matched to prestigious institutions in the country near and far—from Montefiore, the University Hospital and Academic Medical Center for Einstein, to Yale–New Haven Hospital, Houston’s Baylor University Medical Center, Chicago’s McGaw Medical Center of Northwestern University and the University of California Irvine Medical Center.

Match Day is conducted annually by the National Resident Matching Program, which uses computers to weigh applicants’ achievements and geographic preferences against the needs of participating hospitals. With 16,559 U.S. medical school seniors applying, this year’s Match Day was the largest ever and thus the most competitive. Judging from the happy seniors in the Lubin Dining Hall on Match Day, Einstein gave them a valuable edge.

Says Brian Nishinaga, “Einstein trained me to focus as much on the people as on the pathology, introduced me to mentors whom I hope I can be like 20 years down the road and surrounded me with peers who pushed me to shoot for what is ‘best’ instead of settling for what is ‘better.’ Thank you, Einstein.”

Einstein Prof’s Help High School Students

A high school laboratory can offer a bright science-minded student only so much. Fortunately, a number of Einstein professors open the doors of their own labs to local students each summer. Among them:

Katalin Susztak, M.D., Ph.D., associate professor of medicine (nephrology) and of genetics, mentored Natasha Mathur, now a senior at Dobbs Ferry High School. Natasha researched tubular interstitial kidney fibrosis. She went on to place second in the health and medicine category at the Westchester Rockland Science Symposium and received the Phillips Award for Exceptional Research in medicine at the Westchester Science and Engineering Fair. Natasha began a new project on kidney disease this summer at Einstein.

Chandan Guha, M.B.B.S., Ph.D., professor and vice chair in the department of radiation oncology at Einstein and Montefiore and professor in Einstein’s department of pathology, and Alan A. Alfieri, M.S., principal associate of radiation oncology, mentored George Epstein, then a senior at Dobbs Ferry, on ultrasound’s effect on tumor cells. George won the Westchester Academy of Medicine’s Award for Outstanding Research at the Westchester Science and Engineering Fair and placed third in the health and medicine category at the Westchester Rockland Science Symposium. George is a freshman at Cornell University.

www.einstein.yu.edu/matchday2011
Coming Home, Giving Back


The Honduras native came to the Bronx at age 13 speaking no English, but the language barrier didn’t stop him from graduating from South Bronx High School as class valedictorian. He graduated from Cornell University with a bachelor’s degree in biology. After applying unsuccessfully to Einstein, he worked on improving his MCAT scores while earning a master’s degree in biology at New York University and later volunteering at Einstein’s Community Health Outreach (ECHO) Clinic as a translator for its many Spanish-speaking clients. Then he took the MCAT again, reapplied to Einstein and won a spot in the Class of 2011.

On Match Day, Dr. Robles got some good news: he’s headed for a residency in Montefiore Medical Center’s department of family and social medicine. “It’s exactly what I wanted,” said the new doctor, who became a member of the Gold Humanism Honor Society last fall.

Irene Blanco, M.D. ’04, M.S. ’10. “I’ve never lived more than about 20 miles from where I grew up in New Jersey,” says Dr. Blanco.

After graduating with Einstein’s Class of 2004, Dr. Blanco completed an internal medicine residency at New York–Presbyterian Hospital/Weill Cornell Medical Center, returned to Einstein for a rheumatology fellowship and entered Einstein’s Clinical Research Training Program. After earning her master’s degree last year, she extended her Einstein stay indefinitely by joining the department of medicine as an assistant professor of medicine in the division of rheumatology.

Staying local affords Dr. Blanco the opportunity to live her dream: “I wanted to work with an underserved minority population, which we do have in the Bronx,” she says. Her responsibilities as director of the lupus clinic at Montefiore include precepting fellows in the division and collecting data for the Einstein lupus cohort. “In these minority patients, both lupus and its kidney damage tend to be more severe due to a lot of factors,” she says.

Dr. Blanco spends the rest of her time at Einstein looking for biomarkers signaling the presence of lupus nephritis (kidney damage). “I want to know if there’s something I can easily measure that tells me there’s a disease process going on long before signs appear, because the earlier kidney damage is treated, the better the outcome,” she says.

Last year Dr. Blanco became an Einstein Men’s Division Research Scholar. This program helps fund the career development of Einstein physician-scientists. These physicians with specialized research training collaborate with Einstein basic scientists to translate important laboratory findings into new treatments.
Are you ready to take your career to a new level? Earn an Albert Einstein College of Medicine Master of Public Health degree while working...

Einstein’s 42-credit program has a unique focus on community-based research grounded in the social and behavioral sciences. The innovative curriculum, administered by the Albert Einstein College of Medicine Center for Public Health Sciences of Yeshiva University, emphasizes interdisciplinary approaches to addressing local and global public health challenges. The goal is to train professionals in partnering with communities to improve population health and promote community well-being and health equity.

Take classes on a full-time or part-time basis with professionals from a variety of fields and work with community organizations on applied research projects.

Or earn an 11-credit Public Health Certificate that can be completed over the summer and fall.

Applications now being accepted for summer 2012.

To learn more, visit our website: http://www.einstein.yu.edu/centers/public-health-sciences

Public Health Education Programs
Center for Public Health Sciences
E-mail: cphs@einstein.yu.edu

All classes are held on the Jack and Pearl Resnick campus in the northeast Bronx, NY
Bongo Therapy

When it comes to enhancing the quality of life for cancer patients, a drum circle can’t be beat.

“Join us for an afternoon of drumming fun as you lose yourself in exciting African, Caribbean and Latin rhythms!” read the flyer from the Bronx Oncology Living Daily program, directed by Alyson B. Moadel, Ph.D., associate professor of clinical epidemiology & population health and of clinical medicine. Soon thereafter, some two dozen cancer survivors and family members formed a circle in the Evelyn & Joseph I. Lubin Student Activities Center and proceeded to bang on bongos, shake shakers and jingle tambourines along with two professional percussionists. The circle’s participants have hammered out some rave reviews:

“That drum circle was wonderful!

“Chemotherapy is stressful. Coming to meet other people in the same situation is a wonderful release.”

The group was so enthusiastic that the drum circle is now a monthly event, says Dr. Moadel. Medical students Chelsea McGuire and Doug Tremblay have volunteered to lead the rhythmic proceedings. The program is funded by the Entertainment Industry Foundation–Revlon Run/Walk & New York Yankee Stadium Community Fund.

Mentoring: Pass It On!

Everyone knows that students need good mentors, but so do junior faculty members.

Julia H. Arnsten, M.D., M.P.H., professor of medicine (division chief, general internal medicine) and mentor extraordinaire, is helping junior colleagues get papers published and win grants and career development awards. Arrayed on the walls of the division’s conference room are faculty journal submissions in various stages, from proposal to manuscript to published article. Dr. Arnsten’s group of “mentees” meets there once a week for an hour and a half—reporting on progress and receiving constructive criticism from her and from each other. A second weekly meeting is devoted to winning grants from the NIH and private foundations.

The stimulation, the positive energy…”

“It gets you into a zone that is very beneficial for us cancer survivors.”

“Chemotherapy is stressful. Coming to meet other people in the same situation is a wonderful release.”

The group was so enthusiastic that the drum circle is now a monthly event, says Dr. Moadel. Medical students Chelsea McGuire and Doug Tremblay have volunteered to lead the rhythmic proceedings. The program is funded by the Entertainment Industry Foundation–Revlon Run/Walk & New York Yankee Stadium Community Fund.

Dr. Arnsten encourages her staff to run the meetings—the sign of a true mentor.

Since Dr. Arnsten began her mentoring effort in 2004, her group has published articles in leading journals, including the Journal of the American Medical Association, Archives of Internal Medicine and Annals of Internal Medicine. And they’ve garnered six career development awards from the NIH, two three-year Doris Duke Awards, three four-year Robert Wood Johnson career development awards, and two Einstein/Montefiore Clinical & Translational Science Awards.

“When somebody in the group gets a grant, people feel they’ve contributed to each other’s success,” says Dr. Arnsten.

Recent awardees include Chinazo O. Cunningham, M.D., M.S., for expanding treatment options for HIV-infected drug users; Shadi Nahvi, M.D., M.S., for work on smoking cessation; Joanna L. Starrels, M.D., for research on chronic pain; Sarita Shah, M.D., for work on TB transmission; James C. M. Brust, M.D., for a treatment program for TB and HIV co-infection; and Neel R. Gandhi, M.D., for research on drug-resistant TB.
For his keynote talk to Einstein faculty at the eighth annual Davidoff Education Day last May, the dean of the new Hofstra University School of Medicine chose the topic “Building a New Medical School: A Chance to Design Curriculum from Scratch.” The speaker, Lawrence G. Smith, M.D., challenged his audience with the question: “If every physician knows that students remember nothing from class and everything from treating patients, why do we persist in teaching any other way?”

Davidoff Education Day honors Leo M. Davidoff, a distinguished neurosurgeon who was a founding Einstein faculty member and the first chair of general surgery. It is intended to improve faculty teaching and increase the effectiveness of the curriculum.

Mary Y. Lee, M.D., M.S., associate provost at Tufts University, delivered the closing speech, “Teaching and Learning with Technology: Can It Really Make a Difference?” Her talk described the new knowledge-management system that Einstein would soon install.

Faculty members who are excellent teachers and take an interest in their students are tapped for membership in the Davidoff Society, established in 1976 with 12 charter members. Today the membership numbers 240. Davidoff Education Day is sponsored by the Einstein education and faculty support committee and the office of faculty development.

For graduate students, choosing which laboratory to work in is one of the most important decisions they’ll ever make. It’s where they’ll do the thesis research that culminates in their doctoral degrees.

Einstein students have made this decision without much ado. But this year, the members of the Einstein Board of Overseers Student Affairs Committee, chaired by Nathan Kahn, decided that some fanfare was in order. So in June, amidst bouquets of blue and white helium balloons in the Mary and Karl Robbins Auditorium, 54 first-year grad students who had completed their coursework and their rotations through three or four laboratories gathered together for the inaugural Declaration Celebration.

“This event is important for recognizing our Ph.D. students, who have committed their futures to research,” says Mr. Kahn. Keynote speaker Julie Secombe, Ph.D., assistant professor of genetics, offered encouraging words about life in the labs. The event was supported by gifts from a number of Einstein Ph.D. alumni.

Left, the group had special T-shirts printed up bearing words of Albert Einstein: “It’s not that I’m so smart, it’s just that I stay with problems longer.” Right, Julie Secombe, Ph.D., gave the keynote address.

Davidoff Education Day
Sculpting Around

The College of Medicine’s namesake is with us in more than spirit; Albert Einstein’s likeness looks upon us from a number of pedestals across the campus.

Sculptor: Emil Seletz (1907–1999)
Location: Jack and Pearl Resnick Campus inner courtyard
While in medical school in the early 1900s, Emil Seletz took a trip to Washington, DC, and became enthralled by a bust of Abraham Lincoln in the Capitol rotunda. Soon he was sculpting heads himself. During a distinguished career as a California neurosurgeon, Dr. Seletz found time to indulge his passion for sculpture, creating more than 40 busts of Lincoln, as well as Einstein, Beethoven, Ben-Gurion, surgeons and patients.

Sculptor: Helmuth Nathan (1901–1979)
Location: Siegfried and Irma Ullmann Research Center for Health Sciences lobby
Helmuth Nathan, M.D., was born and educated in Germany. On arriving at Einstein as a professor of surgery and founding faculty member in 1955, he was already a widely published researcher and accomplished painter, sculptor and graphic artist. In 1973, Dr. Nathan was appointed professor and chair of the newly created department of the history of medicine. Albert Einstein’s daughter, Margot, said of his bust of Einstein: “What impressed me most is the pensive, dreamy look of the eyes, something lacking in so many other portraits.”

Sculptor: Jacob Epstein (1880–1959)
Location: Leo Forchheimer Medical Science Building, first floor
American-born British sculptor Jacob Epstein met Albert Einstein in England, where Einstein sat three times for him. Epstein said of his subject that “his glance contained a mixture of the humane, the humorous and the profound.” The bust of Einstein at the College of Medicine is one of several that Epstein created.

Sculptor: Gina Plunguian (1906–1962)
Location: Arthur B. and Diane Belfer Educational Center for Health Sciences lobby
American sculptor Gina Plunguian was a longtime friend of Albert Einstein, who sat for her in 1948; the Smithsonian Institution in Washington, DC, has a photo of the session. (Einstein also gave her his pipe that year, which she donated to the Smithsonian in 1958.)

Sculptor: Robert Berks (1922–2011)
Location: Offices and homes everywhere
Unveiled in 1979, the original 12-foot-high bronze statue on the grounds of the National Academy of Sciences in Washington, DC, weighs some four tons. Einstein awards a much smaller replica to commencement speakers and donors. The sculpture shows Albert Einstein holding a paper summarizing three of his most important scientific contributions: the photoelectric effect, the theory of general relativity and the equivalence of energy and matter. Einstein posed for Mr. Berks in 1953, the same year that he gave his name to the College of Medicine. Mr. Berks also sculpted many other famous people, including Franklin Roosevelt, Pablo Casals, John F. Kennedy and Golda Meir.
BODY vs. Diabetes

Second-year med student Ross Kristal has lived with type 1 diabetes since he was 7 years old—which may be why he’s so passionate about type 2. While there’s no cure for type 1, “people don’t have to live with type 2 diabetes,” he says. “It’s preventable and reversible.” And thus was born Ross’ brainchild, BODY: Bronx, Obesity, Diabetes and You. The student-run extracurricular activity brings information and motivation to the local community, where type 2 diabetes is “one of the biggest health problems the Bronx faces,” says Ross.

BODY gives medical students at Einstein a great opportunity to fight on the front lines. This past academic year, two second-year medical students, Debby Yanes and Kristen Meier, led fun after-school exercise activities such as freeze tag and capture the flag with students at P.S. 89, and they created a curriculum to teach basic nutrition concepts—how to read a nutrition label, for example—to fourth graders. Did the kids get it?

“A week after one of our nutrition lessons, a student approached a BODY volunteer and recalled how instead of mindlessly choosing a snack, she consulted the nutrition label and selected the snack based on the amount of calories, just like we talked about during the nutrition lesson!” says Debby.

“We really want BODY to be action-oriented within the community and make an impact. We’re optimistic that BODY will continue for many years to come,” says Ross.
Lab Chat

Kami Kim, M.D., studies Toxoplasma gondii, a single-celled parasite that causes severe brain damage when a healthy immune system is lacking—in AIDS patients, transplant patients and fetuses. Dr. Kim, a professor of medicine (infectious diseases) and of microbiology & immunology at Einstein and an attending physician in the department of medicine at Montefiore, recently received two NIH grants totaling $8 million to support her T. gondii work.

Could you briefly describe your research? “We use genetics, cell biology and biochemistry to study genes that are crucial for T. gondii’s development and survival. We hope our research will lead to drugs that work by targeting and disabling critically important genes.”

How did you become interested in parasites? “My first year at Columbia medical school was the year HIV was described in New York. People talked about this mysterious gay-related immunodeficiency, and one of my first patients was an AIDS patient. I wanted to do an immunology research elective at UCSF, thinking I’d learn how people fight infections, but the only lab willing to take me was a parasitology lab. Subsequently, at Stanford, I started working on Toxoplasma.”

How prevalent is T. gondii infection? “Toxoplasma is one of the world’s most successful parasites and infects at least a third of the world’s population. In this country, around 10 percent of people show evidence of Toxoplasma infection.”

Cats can carry T. gondii in their intestines and are largely responsible for spreading the parasite. Do you own a cat? “No cats—my husband is allergic.”

Any other advice for avoiding toxoplasmosis? “Pregnant women in households with cats should never clean the litter box. And everyone should avoid eating undercooked meat, another source of infection.”

You and your husband [Thomas V. McDonald, M.D., professor of medicine (cardiology) and of molecular pharmacology at Einstein] are both scientists. Are your kids following in your footsteps? “Both kids are interested in math and science, but the older boy, who is 17, doesn’t want to be a doctor. The younger boy is in middle school, so we shall see.”

Were your parents scientists? “My father was a physicist and wanted me and all my siblings—one brother, two sisters—to go to medical school. But I’m the only one who’s a physician or a scientist.”

Did any hobby inspire your work? “As a kid, I loved Radio Shack science kits and the crafty arts like ceramics and knitting. Science speaks to those things—the mystery, the creation.”

When do you do your best thinking? “I’m an insomniac, so I write most of my papers and grants between 10 p.m. and 2 a.m. You need some quiet to really think about things.”

Any final words? “Keep an open mind. There’s a lot of serendipity in the world. You never know where you’ll end up.”

Plasmodium yoelli resembles Plasmodium species that cause malaria in people. Here, Nick Grandin and Li-Min Ting of Dr. Kim’s lab have infected a mouse with P. yoelli cells expressing luciferase, the enzyme that makes fireflies glow, and cells are detected by an extremely sensitive camera. The cells are first visible four days after infection, which peaks at days 7 and 10 and by day 13 is resolved by the mouse’s immune system.
In Memoriam

Robert A. Shimm, M.D.
Dr. Shimm died in New York on December 29, 2010. He came to Einstein in 1956 and organized and ran the medical outpatient department. After 36 years on the Einstein faculty, he retired in 1992 as clinical professor emeritus of medicine. In later years he was an esteemed member of the medical school’s voluntary faculty and served as a physician for many students, members of the Einstein faculty, their families and others.

Anne Christake Cornwell, Ph.D.
Dr. Cornwell died in Santa Barbara, CA, on February 17, 2011, at age 81. A member of the Einstein faculty for more than 35 years in the departments of pediatrics, of ophthalmology and of neurology, she also served as director of the Sudden Infant Death Syndrome Research Project at Montefiore Medical Center. Dr. Cornwell was the recipient of numerous scientific and professional awards and was often invited to present her scientific findings throughout the world.

George J. Fruhman, Ph.D.
Dr. Fruhman, a member of Einstein’s founding faculty, died on July 11, 2011, at age 86. An associate professor of anatomy and structural biology for more than 50 years, Dr. Fruhman taught histology and gross anatomy to generations of Einstein students, many of whom he also mentored. His outstanding ability as an educator was recognized at Einstein’s 2009 Commencement, where he received the College of Medicine’s Lifetime Achievement Award for Excellence in Teaching. He also was a longstanding member of the Leo M. Davidoff Society, which honors teachers at Einstein who have made significant contributions to the education of students. He was a beloved presence on campus and will be missed.

Law & Order at Einstein

During three days in May, cameras rolled as the Michael F. Price Center for Genetic and Translational Medicine/ Harold and Muriel Block Research Pavilion was transformed into the Bedford Institute, a fictional high-tech medical facility featured in an episode of TV’s Law & Order: Criminal Intent. The episode, which aired on June 12 on USA Network, was called “Cadaver” and centered on a man who disappears after making a large donation to the institute.

Leah Newman, assistant to the chief procurement officer and administrator in Einstein’s procurement services department, was pulled in as an extra for a grant award presentation scene on the third floor of the Price Center/Block Research Pavilion. Was she nervous?

“No, not at all—it was fun,” Ms. Newman says. “I live in midtown Manhattan, so I see things being shot all the time and was really curious about what it was like to be on the other side. Hopefully, I can show the episode to my future kids so they can see their dad’s med school!” (Ms. Newman is married to Collin Stutz, D.D.S., M.D., who received a medical degree from Einstein in June.)

As a treat for the many members of the Einstein community who watched the outdoor shots from the sidelines, Vincent D’Onofrio (Detective Robert Goren on the show) generously posed and smiled with anyone bold enough to ask.

Einstein was compensated for the use of its facilities.
In today’s emotionally charged, technologically advanced environment, issues at the crossroads of medicine, law and public policy are commonplace among physicians, lawyers, clergy, healthcare workers and others.

The Einstein-Cardozo Master of Science in Bioethics is a collaboration among Yeshiva University’s Albert Einstein College of Medicine and Cardozo Law, and Montefiore Medical Center, the University hospital for Einstein. The program brings together a broad range of expertise to address bioethics issues and provides students with the knowledge to make potentially life-changing decisions with confidence.

By enrolling in the 32-credit Master’s program (offered on a full-time and part-time basis) you will...

- Examine how moral, ethical and religious values affect medical decisions and healthcare policy
- Master all aspects of bioethics consultation, including ethics analysis, mediation and communication skills. Receive extensive supervision and feedback from experts with vast bioethics consultation experience
- Study crucial bioethics issues, including medical choices at the end of life, the allocation of scarce healthcare resources, protections for human research subjects, the privacy of medical information, and the role of race, class and ethnicity in health outcomes and access to care
- Bring critical skills to your current job and position yourself for advancement by specializing in this exciting, emerging field

An abbreviated program, the six-credit Montefiore-Einstein Certificate Program in Bioethics and Medical Humanities, is also offered independently or as the key introductory course for the Master of Science in Bioethics. Classes are held at Cardozo Law School in Manhattan and Einstein’s Jack and Pearl Resnick campus in the northeast Bronx, NY.

Applications now being accepted for fall 2012

To learn more, visit our website: www.einstein.yu.edu/masters-in-bioethics
Tia Powell, M.D., Director  |  Phone: 718.920.4630  |  E-mail: bioethics@montefiore.org
In 2010, physicians at Hôpital Universitaire Saint-Pierre in Brussels, Belgium, oversaw the care of a 14-year-old girl from Chechnya with XDR-TB. The acutely ill and malnourished patient failed to respond to standard first- and second-line TB medications, and tests showed that her TB strain was extensively drug resistant. As a last resort, the Belgian physicians decided to try clavulanate and meropenem, the combination therapy they had read about in Dr. Blanchard’s Science paper. “We had nothing to lose,” wrote Marie-Christine Payen, M.D., leader of the Belgian team, in an e-mail to the College of Medicine. The girl showed clinical improvement after four weeks of therapy, the Belgian team reported. After 11 weeks, her sputum tests were negative for TB. “This is early and limited evidence that the therapy will be efficacious, but it’s very encouraging,” says Brian Currie, M.D., M.P.H., vice president and medical director for research at Montefiore Medical Center and assistant dean for clinical research at Einstein. “We look forward to beginning clinical trials with our colleagues in South Africa, where drug-resistant TB is a significant and growing problem.” Dr. Currie, also professor of clinical medicine (infectious diseases) and of clinical epidemiology & population health, expects that trials will start within a year.

Einstein has filed a patent application on the novel combination clavulanate–beta-lactam drug formulations to treat TB, as an incentive for commercial drug manufacturers to support expanded clinical trials and to collaborate with Einstein on developing these antibiotics for greater use in TB therapy.

Arid climates were thought to help tuberculosis patients—hence the popularity of TB sanatoriums that opened in Colorado, Arizona, New Mexico, Texas and California during the 1800s and early 1900s. Texas opened its first “tuberculosis colony” near San Angelo in 1911. This photo from the early 1900s shows young female patients on the porch of the Texas facility.

Using a novel two-drug combination developed by Einstein researchers, Belgian physicians cured a young patient with extensively drug-resistant tuberculosis (XDR-TB). Their report, published in the Pediatric Infectious Disease Journal, marks the first known clinical use of this treatment for XDR-TB, the most deadly form of the disease. “It was extremely rewarding to see that our in vitro biochemical studies would contribute to a successful clinical outcome for this seriously ill girl,” says John S. Blanchard, Ph.D., the Dan Danciger Professor of Biochemistry at Einstein, who led the development of the new therapy. Dr. Blanchard and his colleagues had reported in the February 27, 2009 issue of Science that a combination of clavulanate and meropenem inhibited the growth of drug-susceptible laboratory strains of TB as well as XDR-TB strains isolated from TB patients. The drugs work in tandem: clavulanate inhibits a bacterial enzyme (beta-lactamase) that normally shields TB bacteria from meropenem, a member of the beta-lactam class of antibiotics.

The U.S. Food and Drug Administration has approved meropenem for adult and pediatric use, and clavulanate is used in combination with amoxicillin as an FDA-approved antibiotic. Clavulanate-meropenem therapy for XDR-TB has not yet been evaluated in clinical trials.

Tuberculosis bacteria.
Metastasis Molecule Found

Einstein scientists have identified a key player in the spread of breast cancer. The senior author of the study, published in the June 8 online edition of Nature, was Jeffrey W. Pollard, Ph.D., professor of developmental and molecular biology and of obstetrics & gynecology and women’s health and the Louis Goldstein Swan Chair in Women’s Cancer Research.

Metastasis begins when cells break away from the primary tumor and gain the ability to move on their own. These cells invade nearby blood vessels (a process known as intravasation) and are carried by the bloodstream to other parts of the body. The bloodborne tumor cells then escape from vessels in a process called extravasation and seed new and deadly tumors that grow in these distant locations.

In previous studies, Dr. Pollard found that macrophages—immune system cells whose functions include fighting infections—actually promote the spread of cancer. In the current study, using models of human and mouse breast cancer, the researchers showed that when breast tumor cells travel to the lung, these cells secrete CCL2, a molecule that attracts immune cells called inflammatory monocytes—in particular, those bearing receptors for CCL2, which then develop into macrophages.

The monocytes and macrophages “invited” by CCL2 signaling then facilitate extravasation. One way monocytes help tumor cells escape from blood vessels is by secreting vascular endothelial growth factor (VEGF), a substance that makes blood vessels leaky and promotes metastasis, the researchers found.

To confirm their findings, the researchers used anti-CCL2 antibodies to suppress CCL2 signaling—with striking results. In lungs challenged with metastatic tumor cells, the number of metastatic sites that developed was markedly reduced, and the mice lived much longer when CCL2 signaling was blocked.

“These findings have potential implications for therapy, since in human breast cancer we know that CCL2 expression and macrophage infiltration are associated with poor prognosis and metastatic disease,” says Dr. Pollard. “If we can develop ways to inhibit these processes, we might be able to slow or stop breast cancer from spreading.”

DuPont Award Goes to Peng Wu, Ph.D.

For his work in labeling recombinant proteins and living cells, Einstein’s Peng Wu, Ph.D., assistant professor of biochemistry, has been invited to join the 2011 class of DuPont Young Professors, representing 17 national and international universities. Since the award was initiated more than 40 years ago, 548 young professors have received nearly $48 million in grants from DuPont, a science-based products and services company.

Dr. Wu also recently won a five-year grant totaling $1.5 million from the National Institute of General Medical Sciences to continue studying sugars called fucosylated glycans on cell surfaces, where they enable host cells to tell friends from foes.
Watching Genes at Work

Einstein researchers have for the first time observed the activity of a single gene in living cells. In an unprecedented study, published in the April 22 online edition of Science, the scientists were able to follow, in real time, the process of gene transcription, which occurs when a gene converts its DNA information into molecules of messenger RNA (mRNA) that go on to make the protein coded by the gene.

Gene transcription is a key step in synthesizing proteins, which govern the body’s structure and function and underlie many diseases when present in mutated form or in aberrant amounts.

The senior author of the paper was Robert H. Singer, Ph.D., professor and co-chair in the department of anatomy and structural biology, professor in the Dominick P. Purpura Department of Neuroscience and in the department of cell biology, and co-director of the Gruss Lipper Biophotonics Center at Einstein. The study’s lead author was Daniel Larson, Ph.D., previously a member of Dr. Singer’s lab and now an investigator at the National Cancer Institute and head of the institute’s Systems Biology of Gene Expression Section.

Using fluorescent proteins, the researchers were able to follow mRNA activity by inserting DNA sequences into a gene in live yeast cells. RNA made from these sequences bound a modified green fluorescent protein; expression of the entire gene resulted in mRNA molecules that were visible with fluorescent light.

The study involved monitoring the activity of RNA polymerase—the enzyme that constructs mRNA molecules by linking single nucleotides together into a molecular chain. The researchers were able to directly observe and measure the key steps involved in transcription.

“Understanding how gene expression is regulated in a single-celled organism such as yeast is a first step in understanding the same processes in humans, which have a vastly larger and more complex genome,” says Dr. Larson. “But fundamentally, the same molecular laws will still apply.”

Childhood Cancer Gene Identified

Nothing works against rhabdoid tumors, aggressive childhood cancers that usually strike children under 3 years old and affect the brain or kidneys. The disease is extremely rare—fewer than 10 cases are diagnosed each year in the United States—but almost always fatal.

Now scientists at Einstein have identified a target for potential therapies for these tumors: a gene called Aurora A that is vital for tumor growth. The research team was led by Ganjam V. Kalpana, Ph.D., professor of genetics and of microbiology & immunology, and the Mark Trauner Faculty Scholar in Neurooncology at Einstein. Their findings appear in the April 26 online issue of Cancer Research.

The Aurora A gene is known to be expressed at higher-than-normal levels in many cancers, and its expression is associated with poor prognoses. Scientists have also known that mutations in a tumor suppressor gene called INI1/hSNF5 can lead to rhabdoid tumors. In this study, the Kalpana team found that in rhabdoid tumors, loss of the tumor suppressor gene INI1/hSNF5 leads to changes in Aurora A’s expression that are crucial for tumor growth.

In experiments involving rhabdoid tumors and tumor cell lines, the Einstein scientists showed for the first time that Aurora A is highly expressed in both human and mouse rhabdoid tumors, that the loss of the INI1/hSNF5 tumor suppressor gene from rhabdoid tumor cells leads to the
“de-repression” of *Aurora A* and that knocking down *Aurora A*’s expression in rhabdoid tumor cells potently inhibits the growth of those cells.

“Our findings indicate that targeting *Aurora A* could be an effective strategy for halting rhabdoid tumor growth,” says Dr. Kalpana. She notes that many *Aurora A* inhibitors are now being tested against several types of cancers, including melanoma and non-Hodgkin’s lymphoma.

**Liver Cell Transplants May Reverse Genetic Liver and Lung Disease**

Transplanting cells from healthy adult livers may work in treating a genetic liver-lung disorder that affects millions of people worldwide, according to an animal study in the April 18 online edition of the *Journal of Clinical Investigation*. Jayanta R. Roy-Chowdhury, M.B.B.S., professor of medicine (gastroenterology & liver diseases) and of genetics and scientific director of Einstein’s Gene Therapy Core, and attending physician at Montefiore, was the study’s senior author.

Alpha-1 antitrypsin (AAT) deficiency is the most common potentially lethal hereditary disease among Caucasians, affecting an estimated 100,000 people in the United States and 3.4 million people worldwide. AAT is a protein made by the liver that is essential for lung health. In AAT deficiency, the liver produces a misshapen form of AAT that cannot enter the bloodstream and instead gets stuck inside liver cells, and accumulating AAT leads to liver fibrosis (development of scar tissue) and liver failure.

In the study, Dr. Roy-Chowdhury and his colleagues tested cell therapy on transgenic mice whose liver cells (hepatocytes) had been engineered to produce mutant human AAT, resulting in liver fibrosis. When the mice were given infusions of hepatocytes harvested from the livers of healthy mice, the transplanted cells proliferated in the host livers, progressively replacing diseased hepatocytes. Most importantly, says Dr. Roy-Chowdhury, the transplanted cells reversed the fibrosis that had developed.

Current therapy for AAT deficiency consists of lifelong injections of a genetically engineered version of AAT called Prolastin. “This very expensive therapy slows progression of the lung disease in some patients but does not have any beneficial effect on the liver disease,” says Dr. Roy-Chowdhury. The only other therapy for AAT deficiency is combined lung-liver transplantation, reserved for the sickest patients.
An Enzyme That Steers—and Brakes—Cells

Members of an enzyme family found in humans and throughout the plant and animal kingdoms play a crucial role in regulating cell motility, Einstein researchers have discovered. Their findings suggest an entirely new strategy for treating conditions ranging from diabetic ulcers to metastatic cancer.

David J. Sharp, Ph.D., professor of physiology & biophysics, was the senior author of the study, which was published in the March 6 online edition of *Nature Cell Biology*.

“Cells in our bodies are in constant motion, migrating from their birth sites to distant targets,” says Dr. Sharp. “Cellular movement builds our tissues and organs and underlies key functions such as the immune response and wound healing. But uncontrolled cell migration can lead to devastating problems, including mental retardation, vascular disease and metastatic cancer.”

Dr. Sharp and his colleagues found that certain members of an enzyme family known as katanin concentrate at the outer edges of nondividing cells, where they break up microtubules—dynamic intracellular polymers that regulate cell movement by controlling the formation of protrusions called lamellipodia. (Polymers are large molecules composed of many repeating units.)

When Dr. Sharp’s team treated motile cells of the fruit fly *Drosophila* with a drug that inhibited katanin production, the treated cells moved significantly faster than control cells, and with a striking increase in high-velocity movements, indicating that katanin prevents cells from moving too rapidly or in an uncontrolled manner. The researchers observed similar effects with katanin when they examined human cells.

“Our study opens up a new avenue for developing therapeutic agents for treating wounds—burns and diabetic ulcers, for example—as well as metastatic disease,” adds Dr. Sharp.

Progress Against Chagas

Chagas disease is caused by the single-celled parasite *Trypanosoma cruzi* and is a leading cause of heart failure in Latin America. Herbert B. Tanowitz, M.D., professor of pathology and of medicine (infectious diseases) at Einstein and attending physician at Montefiore, in collaboration with David C. Spray, Ph.D., Dumitru A. Iacobas, Ph.D., and Antonio Campos De Carvalho, M.D., Ph.D., all in Einstein’s Dominick P. Purpura Department of Neuroscience, as well as students and postdocs on a Fogarty Training Grant, investigated bone marrow cell transplants as a treatment for cardiomyopathy (deteriorated function of heart muscle) resulting from chronic Chagas disease.

In a gene microarray study comparing hearts of infected mice treated or untreated with bone marrow cells, Dr. Tanowitz and colleagues found that 96 percent of 1,702 genes altered by *T. cruzi* infection recovered normal expression following bone marrow cell treatment. The researchers reported their findings in the May issue of *Cell Cycle*. 
Wake-Up Call: Monitoring Addictive Drugs

Few primary care physicians pay adequate attention to patients taking prescription opioid drugs—despite the potential for abuse, addiction and overdose, according to a new study by Einstein researchers.

The study, published in the March 2 online edition of the *Journal of General Internal Medicine*, found lax monitoring even of patients at high risk for opioid misuse, such as those with a history of drug abuse or dependence. The findings are of special concern considering that prescription drugs now rank second (after marijuana) among illicitly used drugs, with approximately 2.2 million Americans reporting first-time non-medical use of pain relievers in 2009, according to the National Institute on Drug Abuse.

The researchers studied administrative and medical records of more than 1,600 primary care patients for an average of two years while they received regular prescription opioids for chronic, noncancer pain. They looked at whether patients received urine drug testing, were seen regularly in the office or received multiple early opioid refills.

“Our study highlights a missed opportunity for identifying and reducing misuse of prescribed opioids in primary care settings,” says lead author Joanna L. Starrels, M.D., assistant professor of medicine (general internal medicine) at Einstein and attending physician at Montefiore. “The finding that physicians did not increase precautions for patients at highest risk for opioid misuse should be a call for a standardized approach to monitoring.”

Obesity, Diabetes and the Brain

The brain’s hypothalamus plays a key role in obesity and one of its major complications—type 2 diabetes. Nerve cells in the hypothalamus detect nutrients and hormones circulating in the blood and then coordinate a complex series of behavioral and physiological responses to maintain a balance between calories eaten and calories burned. Obesity and diabetes can result when this regulatory mechanism goes awry.

Now, research by postdoctoral fellow Clémence Blouet, Ph.D., and Gary J. Schwartz, Ph.D., professor in the department of medicine (endocrinology) and in the Dominick P. Purpura Department of Neuroscience, has revealed a molecule in the brain that may contribute to those health problems, both of which are reaching epidemic proportions.

In work involving mouse models of obesity and diabetes, Drs. Blouet and Schwartz have shown that excess nutrient availability leads to an over-abundance of a protein found in nutrient-sensing nerve cells of the hypothalamus. They concluded that increased levels of this protein, known as thioredoxin-interacting protein, or TXNIP, contribute to the onset of obesity and the impaired control of blood sugar levels that characterizes type 2 diabetes. Their findings were published in the April 20 online edition of the *Journal of Neuroscience*.

“Our study indicates that TXNIP in hypothalamic nerve cells provides a crucial link between brain nutrient sensing and the increases in body weight and fat mass that lead to obesity and diabetes,” says Dr. Schwartz. “Hyperglycemia—pathologically elevated glucose levels—causes an excess of TXNIP in hypothalamic neurons, which in turn may contribute in several ways to a breakdown in energy homeostasis—the balance between calories taken in and calories burned.”

Dr. Schwartz notes that these findings regarding TXNIP could eventually lead to therapies. “Interventions that can suppress TXNIP production or selectively inactivate this protein might help in preventing weight gain and the obesity and diabetes that result from it,” he says.
Grad Students Honored at Marmur Symposium

Three promising young researchers presented their work to the Einstein community and received some well-deserved recognition at the 15th Annual Julius Marmur Symposium in March. The symposium opened with presentations from the award winners, followed by lunch, poster presentations and a reception in the Lubin Dining Hall. The three students were chosen for the potential impact of their research in their fields.

The awards were given in memory of Julius Marmur, Ph.D., a professor of biochemistry and of genetics at Einstein and an enthusiastic and dedicated educator. This year’s student winners are:

**Diany Paola Calderon.** As a teenager, Ms. Calderon was fascinated by how the skin perceives touch, which developed into a strong interest in the nervous system. After graduating from medical school in her native Colombia, she studied human Schwann cells at the Colombian National Institute of Health. Calderon came to Einstein for graduate school in 2004 and worked in the lab of Kamran Khodakhah, Ph.D., professor in the Dominick P. Purpura Department of Neuroscience, where she researched the mechanisms by which rapid-onset dystonia-parkinsonism (RDP) results in dystonia and parkinsonism symptoms. Her talk at the Marmur Symposium was “The Neural Substrates of Rapid-Onset Dystonia-Parkinsonism.”

**Catherine Y. Liu.** Ms. Liu came to the United States at age 6 and credits her parents with cultivating her interest in science. She earned a master’s degree in chemistry at the University of Pennsylvania, where she worked on the role of alpha-synuclein in a *Drosophila* model of Parkinson’s disease. Liu joined Einstein’s M.D./Ph.D. program, the Medical Scientist Training Program (MSTP), and studied how alphaviruses infect cells in the lab of Margaret Kielian, Ph.D., professor of cell biology. Liu looked specifically at molecular mechanisms of membrane fusion, which is critical for virus infection of host cells. She is now doing her medical school rotations. Her presentation at the Marmur Symposium was “Unlocking the Secrets of the E1 Homotrimerization Reaction During Semliki Forest Virus Membrane Fusion.”

**Rotem Rubinstein.** Born in Israel, Mr. Rubinstein entered Einstein’s Ph.D. program with an undergraduate degree in mathematics and computer science and a year of experience on a project that involved programming methods to predict the three-dimensional structure of proteins. He undertook his graduate thesis while working concurrently in two labs.

His laboratory work under Steven C. Almo, Ph.D., professor of biochemistry and of physiology & biophysics, and Andras Fiser, Ph.D., associate professor of systems & computational biology and of biochemistry, allowed him to test hypotheses in the lab that had arisen from his theoretical computations. Rubinstein’s thesis work involves the relationships among amino acid sequence and structure, and function of cell-surface immunoglobulin-superfamily proteins.

Rubinstein also developed a novel method for predicting disulfide bond formation—the most frequent naturally occurring covalent cross-link in proteins. Being able to predict the pattern in which disulfide bonds occur provides insight into protein’s structure and function. Rubinstein defended his thesis in September 2010, and his presentation at the Marmur Symposium was “Functional Classification and Structural Characterization of Immune Regulatory Proteins.”
New Fluorescent Protein Makes Internal Organs Visible

Einstein researchers have developed the first fluorescent protein that enables scientists to clearly “see” the internal organs of living animals without the need for a scalpel.

The new probe could be a breakthrough in whole-body imaging — allowing doctors, for example, to noninvasively monitor the growth of tumors to assess the effectiveness of anti-cancer therapies. In contrast to other body-scanning techniques, fluorescent-protein imaging does not involve radiation exposure or require the use of contrast agents. The findings are described in the July 17 online edition of *Nature Biotechnology*, and the research was conducted in the lab of Vladislav Verkhusha, Ph.D., professor of anatomy and structural biology.

Scientists have used a variety of colored fluorescent proteins to visualize cells and their organelles and molecules. But using fluorescent probes to peer inside live mammals has posed a major challenge: hemoglobin in an animal’s blood effectively absorbs the blue, green, red and other wavelengths used to stimulate standard fluorescent proteins, along with any wavelengths emitted by the proteins when they do light up.

To overcome that roadblock, Einstein researchers engineered a fluorescent protein from a bacterial phytochrome (the pigment that a species of bacteria uses to detect light). This new fluorescent protein, dubbed iRFP, both absorbs and emits light in the near-infrared region of the electromagnetic spectrum in which mammalian tissues are nearly transparent.

The researchers targeted their fluorescent protein to the liver—particularly difficult to visualize because of its high blood content. Adenovirus particles containing the gene for iRFP were injected into mice. Once the viruses and their gene cargoes infected liver cells, the infected cells expressed the gene and produced iRFP protein. The mice were then exposed to near-infrared light, and it was possible to visualize the resulting emitted fluorescent light using a whole-body imaging device.

“iRFP was far superior to the other fluorescent proteins that reportedly help in visualizing the livers of live animals,” said Grigory Filonov, Ph.D., a postdoctoral fellow in the department of anatomy and structural biology and first author of the *Nature Biotechnology* paper. “We believe it will significantly broaden the potential uses for noninvasive whole-body imaging.”

Liver cells in this mouse contain the fluorescent protein iRFP. The mouse was exposed to near-infrared light, which caused iRFP to emit light waves that are also near-infrared. The composite image shows these fluorescent near-infrared waves passing readily through the animal’s tissues to reveal its brightly glowing liver.

Gates Grant for Anti-Retroviral HIV Therapy

Arturo Casadevall, M.D., Ph.D., and Ekaterina Dadachova, Ph.D., are winners of a $100,000 grant from the Grand Challenges Explorations (GCE) program, an initiative funded by the Bill & Melinda Gates Foundation. Dr. Casadevall holds the Leo and Julia Forchheimer Chair in Microbiology and Immunology and is professor and chair of the department of microbiology & immunology and professor of medicine (infectious diseases) at Einstein. Dr. Dadachova is professor of nuclear medicine and of microbiology & immunology and the Sylvia and Robert S. Olnick Faculty Scholar in Cancer Research.

Their project, “Radioimmunotherapy in Patients on Antiretroviral Therapy for HIV Cure,” involves using radioimmunotherapy (in which radioactive isotopes are attached to antibodies) to treat HIV/AIDS. The antibody will target a specific protein on the surface of cells infected with HIV so that radiation emitted by its attached isotope will destroy the cells. (See the related article on page 26.)

GCE is a $100 million initiative funded by the Gates Foundation. Launched in 2008, GCE grants have already been awarded to nearly 500 researchers from over 40 countries.

The GCE grants “are meant to spur on new discoveries that could ultimately save millions of lives,” says Chris Wilson, director of the Global Health Discovery program at the Gates Foundation.
AIDS Arises and Einstein Responds

“I know something’s wrong.”
— *The Normal Heart*, by Larry Kramer

The 1970s were heady times for infectious-disease experts. Vaccines were developed against rubella, chicken pox, pneumonia and meningitis. Smallpox had all but disappeared, and tuberculosis, at least in the United States, was in retreat. Disease-causing microbes, it seemed, were headed for history’s dustbin.

Optimism about the end of infectious disease would soon be crushed. On June 5, 1981, the Centers for Disease Control and Prevention’s *Morbidity and Mortality Weekly Report (MMWR)* published a brief article about five young gay men in Los Angeles with rare opportunistic infections that had been found “almost exclusively” in people with compromised immune systems. Yet these previously healthy men were “without a clinically apparent underlying immunodeficiency,” which the *MMWR* article termed “unusual.” More and more cases were reported in the months that followed. Something was definitely wrong.

That “something” was a new disease that in 1983 became known as acquired immunodeficiency syndrome, or AIDS. By now, 30 years later, AIDS has taken 30 million lives and ranks among history’s worst pandemics.
In many ways, the healthcare establishment was slow to react to the brewing crisis, but researchers made steady progress in understanding it. Within five years of that fateful *MMWR* report, researchers identified the at-risk groups, learned how AIDS was transmitted, issued recommendations for prevention, discovered the virus—known as human immunodeficiency virus, or HIV—responsible for causing AIDS and developed a commercial blood test for detecting the virus.

In 1987, scientists showed that a drug called AZT could prolong the lives of people with AIDS and prevent mother-to-child transmission during pregnancy. Then, in 1995, a combination therapy using a “cocktail” of three or more antiretroviral drugs was introduced—a treatment approach called highly active antiretroviral therapy, or HAART. With HAART, AIDS was transformed from an invariably fatal disease into a manageable chronic illness.

Medicine’s remarkable response to AIDS can be viewed in microcosm at Einstein and its clinical affiliates (see “Milestones,” page 24).

The story of AIDS at Einstein begins with Arye Rubinstein, M.D., professor of pediatrics (division chief, allergy and immunology) and of microbiology & immunology, who diagnosed—in 1979—one of the first pediatric cases of this new immunodeficiency disease. His recognition that HIV could be transmitted from mother to child—and that infection was not solely the result of “lifestyle choice”—was a major milestone in the history of AIDS. Through a blend of scientific inquiry and social activism, he helped prevent AIDS from reaching epidemic proportions in infants and children, often at considerable professional and personal risk.

“I was almost assaulted after testifying in court in Brooklyn,” recalls Dr. Rubinstein. “The parents in one school wanted to remove children who were infected, but I testified that HIV was not transmitted through casual contact. The parents got very upset, to the point where I had to be hauled out of the courtroom through a back door.”

Another story of compassion and perseverance features Peter Selwyn, M.D., M.P.H., professor and chair of family and social medicine. He began his residency in family medicine at Montefiore Medical Center in June 1981—the very month the article appeared in *MMWR*. “In those early years…we had the uneasy feeling that an unknown, shadowy predator was at large, ranging across the vast expanse of the Bronx, not clearly visible but leaving its distinctive tracks,” he writes in his memoir, *Surviving the Fall: The Personal Journey of an AIDS Doctor*.

Rather than escape to safer precincts after his residency, Dr. Selwyn became medical director of Montefiore’s Substance Abuse Treatment Program, where he served as the primary care doctor for nearly 1,000 current or former intravenous drug users, many infected with HIV. “[S]cores and eventually hundreds of patients died under my care, and not one of them was over 50,” he writes.

Along with Einstein colleagues
including Ellie Schoenbaum, M.D., professor of epidemiology & population health, Gerald Friedland, M.D., and Robert Klein, M.D., Dr. Selwyn conducted some of the earliest studies of HIV among substance abusers. Today, as director of community health at Montefiore, Dr. Selwyn remains closely involved with this patient population.

As the following pages illustrate, Drs. Rubinstein and Selwyn are not the only Einstein faculty members who have dedicated their careers to people with HIV/AIDS, which often means working with society’s outcasts or in impoverished corners of the world.

The National Institutes of Health (NIH) began establishing a national network of Centers for AIDS Research (CFARs) in 1988—including one at Einstein, largely because of its expertise in pediatric AIDS. When antiretroviral drugs succeeded in sharply reducing new cases of pediatric AIDS, Einstein’s CFAR broadened its mission.

Today’s areas of study by Einstein-Montefiore investigators include the molecular biology of HIV, interventions to prevent transmission among inner-city teens, developing HIV vaccines and microbicides, AIDS-related dementia and treatment compliance. The Einstein-Montefiore CFAR has also expanded globally, bringing AIDS-related scientific, educational and clinical activities to parts of the world hit hardest by the epidemic and least able to cope with it.

The Einstein-Montefiore CFAR now supports the work of 86 principal investigators from across many disciplines who work in four broad areas: behavioral and treatment research; clinical and translational research; virological/immunological pathogenesis and treatment research; and international research. Nearly one fourth of Einstein’s principal investigators are engaged in research related to HIV/AIDS, reflecting how the disease has affected health and society and how Einstein has responded to that challenge. In this article, we focus on 10 of these researchers and how they are confronting HIV/AIDS.

Despite the progress so far, 2.6 million more people worldwide will acquire HIV this year, and 1.8 million will die of the disease. Although antiretroviral therapy has saved countless lives, survivors face an elevated risk of heart disease, dementia, cancer and other diseases. So the search continues for better drugs to treat the disease, as well as for vaccines, microbicides and social interventions to prevent it from spreading.

“Thirty years into the AIDS epidemic, our greatest unmet need is for a vaccine that will relegate HIV to the history books as was done with smallpox,” says Harris Goldstein, M.D. ’80, director of the Einstein-Montefiore CFAR and the Charles Michael Chair in Autoimmune Diseases. But on the plus side, he notes, the AIDS experience has provided reason for optimism:

“We now know that society can change its attitude towards previously marginalized populations in the grip of an infection, that healthcare workers will selflessly care for patients despite risks to their own health, that people can change their behavior to reduce the spread of infection and that research can convert a death sentence into a treatable disease.”
“Designer Antibodies” Against HIV Could Bolster Immune Response

Researchers identified HIV as the cause of AIDS in 1983, raising hopes that a vaccine would soon follow. But so far, even the best experimental vaccines—those that have triggered antibodies that react with HIV—have shown minimal success.

Vaccines work by exposing the body to killed or inactivated parts of a pathogen. These molecular bits prime the immune system’s B cells to produce antibodies that stand ready to recognize, target and destroy invading organisms. But this does little good against the AIDS virus.

“HIV is capable of evading antibodies by mutating its proteins. It’s a master of disguise,” says Dr. Goldstein, assistant dean for scientific resources and professor of pediatrics (allergy and immunology) and of microbiology & immunology.

Can the immune system be strengthened to ward off HIV?

Dr. Goldstein believes that it can. He is now working on a solution that uses molecular engineering to provide patients with powerful “designer antibodies” that their own immune systems could not make.

The first step involves loading the genes for these antibodies into lentiviruses—viruses skilled at inserting their genetic payloads into the genomes of other cells. A person’s B cells would then be harvested from the bloodstream and mixed with lentiviruses bearing the protective genes. When reinfused into that individual, the reprogrammed B cells would begin to express the powerful anti-HIV antibodies that are difficult for HIV to evade.

Dr. Goldstein hopes to target these potent artificial antibodies against what could be HIV’s Achilles’ heel: a molecule on its surface called gp120, which the virus requires to dock with and infect cells.

Although HIV is notorious for its ability to mutate, a particular segment of gp120 rarely does. But HIV keeps this vulnerable portion of gp120 well hidden from the immune system, except for a few milliseconds when HIV latches onto a cell.

“If you want to stop HIV from infecting cells, that’s the molecular sequence you need to target,” says Dr. Goldstein. “Unfortunately, conventional antibodies are too big to get to it when it’s revealed just prior to HIV’s entry into cells.”

To overcome this problem, the NIH’s Dimiter S. Dimitrov, Ph.D., has created tiny antibodies, specific to this gp120 region, that can slip through the virus’ defenses. But the price paid for making “miniantibodies” is that the body breaks them down soon after they’re injected.

“If we can use our lentiviruses to program B cells to make this antibody, we can then provide the body with a constant supply of these potent antibodies,” says Dr. Goldstein.

The approach has worked in a mouse model of HIV, raising hopes that science will finally unmask and neutralize this master of disguise.
Antiviral Therapy and Radioimmunotherapy: A Fatal One-Two Punch Against HIV?

Antiretroviral drugs can suppress HIV replication and greatly reduce symptoms, but they don’t eliminate the infection. Down but not out, HIV persists in the body—capable of causing further damage and potentially transmittable to others. So the search continues for therapies that can rid patients of HIV and that would essentially amount to a cure for HIV/AIDS.

One promising solution is radioimmunotherapy (RIT), in which a radioisotope is attached to an antibody that seeks out HIV-infected host cells and delivers a lethal dose of radiation to these virus-producing cells.

RIT has been successfully used to treat several types of cancer. Its use against HIV infection resulted from a collaboration between two Einstein scientists who have worked together for more than a decade on this and other projects: Arturo Casadevall, M.D., Ph.D., the Leo and Julia Forchheimer Chair in Microbiology and Immunology, professor and chair of the department and professor of medicine (infectious diseases), and Ekaterina Dadachova, Ph.D., professor of nuclear medicine and of microbiology & immunology and the Sylvia and Robert S. Olnick Faculty Scholar in Cancer Research, and their Einstein colleague Dr. Harris Goldstein.

In HIV RIT, antibodies are made against the viral protein gp41, one of several viral proteins displayed on the surface of HIV-infected cells. The antibodies are linked to radioactive isotopes such as Bismuth-213 or Rhenium-188 and then injected into the bloodstream. After the antibody latches onto the surface of an HIV-infected cell, its radioisotope “cargo” emits radiation that destroys the cell.

In 2006, Drs. Casadevall, Dadachova and Goldstein published a paper in *PLoS Medicine* showing that RIT could successfully target and destroy human immune cells infected with HIV. The study, involving mice, supports the idea that this therapy might also help in treating people infected with HIV.

“Although today’s antiretroviral drugs help keep HIV from multiplying, they can’t do anything about latently infected cells in which the virus lurks and may later start multiplying,” says Dr. Dadachova. “Since even these latently infected cells display some gp41 on their surfaces, we hope that RIT can destroy them as well, thereby eliminating HIV from the body.”

Recognizing the promise of HIV RIT, the Bill and Melinda Gates Foundation recently awarded Drs. Casadevall and Dadachova a prestigious “Grand Challenges Explorations” grant worth $100,000 (see Lab Dish, p. 21). The grant is paying for lab studies of the interaction between radioimmunotherapy and antiretroviral drugs that should be completed early next year. Then, says Dr. Dadachova, the researchers will apply for Gates Foundation funding for a phase 2 trial of radioimmunotherapy in patients with HIV—a collaboration among Einstein, the Institute for Transuranium Elements in Karlsruhe, Germany, and Guy’s Hospital in London, that would be carried out in the United Kingdom.
Protecting Women From HIV Infection

Early in the AIDS epidemic, laboratory studies showed that nonoxynol-9 (N-9), a spermicide used in condoms and contraceptive gels, showed promise as a vaginal microbicide against HIV. Perhaps N-9 could be the sought-for alternative to condoms, allowing women to protect themselves without depending on their partners’ cooperation.

But clinical trials found that N-9 was ineffective against HIV and, when used often, actually made women more susceptible to the virus. Later, the promising microbicide cellulose sulfate (CS) would meet a similar fate.

What went wrong en route from bench to bedside? Betsy C. Herold, M.D., professor of pediatrics (infectious diseases), of microbiology & immunology and of obstetrics & gynecology and women’s health, suspected the preclinical testing was too simplistic.

Using lab tests replicating actual conditions, Dr. Herold (on right in photo) showed that factors such as semen and vaginal secretions could render microbicides ineffective. She confirmed her findings in animals and then in small-scale clinical trials conducted with Marla Keller, M.D., associate professor of medicine (infectious diseases) and of obstetrics & gynecology and women’s health.

But why did N-9 and CS make things worse? “The tightly packed cells of the vaginal epithelium form an impermeable barrier to HIV,” says Dr. Herold. “We theorized that if a microbicide disrupts the barrier’s structural integrity, HIV might be able to slip through and infect circulating T cells.”

To test this theory, Pedro Mesquita, Ph.D., an instructor in pediatrics at Einstein and a member of Dr. Herold’s lab, developed a model that mimics the genital tract environment, composed of two chambers separated by a barrier of cultured human epithelial cells. After treating the barrier with different microbicides, the researchers tested its permeability by placing HIV in the upper chamber and T cells in the lower chamber, and then monitoring T cell infection over time.

HIV couldn’t reach the lower chamber when the epithelial barrier was treated with a placebo. But treating the barrier with either N-9 or CS allowed HIV to slip through and infect the T cells—a test that might have predicted the failure of the N-9 and CS trials.

Recently, the researchers used their dual-chamber model to test a microbicide containing tenofovir, a potent antiretroviral drug. The drug left the epithelial barrier intact, suggesting that it would be a good microbicide. In 2010, a clinical trial conducted in South Africa found that tenofovir gel did indeed reduce new HIV infections in high-risk women by 39 percent compared to a placebo.

But Drs. Herold and Keller believe microbicides must perform better. “Very few women will use a gel every time they have sex, and many won’t use it within the prescribed time before or after sex,” says Dr. Keller. “So we’ve started looking at better delivery systems, like vaginal rings, that provide controlled release of drugs over extended periods and therefore take adherence out of the equation.”
HIV Prevention: Teens Helping Teens

Teenagers are notoriously difficult to dissuade from engaging in risky behaviors. Warn them against something and they’ll likely ignore you or do the opposite.

One way to reach teens is through peer counseling. Researchers in Einstein’s Preventive Intervention Research Center (PIRC) have put it to good use, helping adolescents reduce their risk of acquiring HIV and other sexually transmitted infections (STIs).

Laurie J. Bauman, Ph.D., professor of pediatrics (general pediatrics) and director of PIRC, began experimenting with peer counseling in the 1980s. She helped to create the innovative Teen Education and Employment Network (TEEN) program, which trained Bronx adolescents with chronic health conditions to mentor other, similarly challenged youngsters in the hopes of improving mental health and self-esteem in those kids.

It soon became apparent that the intervention was working—but not in the way the researchers expected. The ones benefiting most were the mentors. From that serendipitous finding emerged a new approach to influencing teen behavior.

In the 1990s, Dr. Bauman turned her attention to HIV prevention when minority inner-city adolescents were found to be at particular risk for contracting the virus. With TEEN as her model, she developed a program called Project Safe in which teens received several weeks of intensive training and then taught their peers everything they wanted to know about sex but were too uncomfortable to ask. “Basically, we were trying to address the many misconceptions and beliefs that undermine teenagers’ use of condoms,” says Dr. Bauman.

Project Safe proved a success, but some teens continued having unprotected sex. In later studies, Dr. Bauman and her colleagues delved deeper into the lives of inner-city teens and found that condom use depended on how they perceived their relationships. Teens who were, in their words, “messin’ around” almost always used condoms, while those in committed, “hubby/wifey” relationships usually did not. The take-home lesson was that HIV/STI prevention efforts must address factors, such as love and monogamy, that influence youthful behavior.

“A major task in middle-to-late adolescence is to develop and understand an attachment with your love partner,” Dr. Bauman elaborates. “But we do a terrible job of helping young people understand how to treat a partner with respect, how to communicate with someone on an intimate level separate from sex. That’s a tragedy.” A tragedy with important consequences, including low rates of condom use and high rates of HIV/STI transmission.

In a new effort called Project Prepared, Dr. Bauman is developing an HIV/STI prevention intervention for youths aged 12 to 14 that again uses peer counseling. The project will help kids avoid risky sexual situations and provide medically accurate information about sexual development, sexually transmitted infections and pregnancy.
Coaxing People to Take Their Meds

You’d think that HIV-infected people would be motivated to take their antiretroviral medications every day. After all, it could be a matter of life and death. But many patients—most notably intravenous drug users, who tend to have complicated, unstable lives—have trouble sticking with their treatment regimens, putting themselves and others at risk.

Doctors treating people with HIV have been struggling with this problem since 1995, when antiretroviral therapy first came on the market. “In those days, patients needed to take 18, 19, 20 pills a day, and adherence was tremendously challenging for everyone,” says Julia H. Arnsten, M.D., M.P.H., professor of medicine (division chief, general internal medicine), of epidemiology & population health and of psychiatry and behavioral sciences. This regimen has since been greatly simplified, but poor adherence remains a problem.

Several years ago, Dr. Arnsten and her colleagues at the Montefiore Substance Abuse Treatment Program wondered if the solution was to combine HIV primary care services with a methadone maintenance program. When patients came for their daily doses of methadone, clinic workers would ensure that they took their prescribed dose of antiretrovirals. The strategy, known as directly observed therapy (DOT), had worked wonders for tuberculosis but had never been evaluated for HIV.

To test this strategy, Dr. Arnsten designed a study in which patients were randomly assigned either to receive directly observed antiretroviral therapy (provided on site at a methadone clinic) or to self-administer antiretrovirals and receive advice at the methadone clinic after sticking with the therapy.

Sadly, Dr. Arnsten had no shortage of study participants. As of the end of 2009, there were some 109,000 HIV-infected people in New York City (including 23,000 in the Bronx), about 20 percent of whom had a history of IV drug use.

“We found that for those receiving DOT, adherence overall was almost twice that of the treatment-as-usual group,” says Dr. Arnsten. “But more importantly, their viral load was three times more likely to be undetectable, so DOT was extraordinarily effective.”

Soon after the trial ended, however, adherence among the members of the DOT group dropped and their viral levels rose. “We hoped they had developed the skills to maintain the regimen, but evidently that wasn’t the case,” says Dr. Arnsten. “But at least we now know how to intervene and that active intervention helps.” DOT is now the standard of care at the Montefiore substance abuse program and will likely be adopted elsewhere as the findings become more widely known.

Why should society care about patients who won’t care for themselves? “We can be moralistic, or we can say that everyone deserves an opportunity to live the best life they can, no matter what choices they’ve made in the past,” says Dr. Arnsten. She also cites recent studies showing that treating HIV-positive individuals markedly reduces their risk for infecting others. So treatment not only helps the patient but benefits society by preventing the spread of HIV.
The Accidental AIDS Researcher

When Kathryn Anastos, M.D., professor of medicine (general internal medicine) and of epidemiology & population health, began her career in the 1980s, she intended to go into community-oriented primary care. But a new and deadly epidemic would push her into uncharted territory.

By the end of the decade, people with HIV were filling the clinics at Bronx-Lebanon Hospital Center, where she was director of ambulatory services. She searched the scientific literature for guidance in treating her patients. “There was little data on caring for poor people with HIV disease, and nothing on women,” she recalls.

Dr. Anastos, a graduate of the Einstein-Montefiore residency program in social medicine, was not about to let that inequity stand. Along with other like-minded individuals and organizations, including the activist AIDS group ACT UP, she petitioned government authorities for broader studies of HIV.

The NIH responded by establishing the Women’s Interagency HIV Study (WIHS) to examine the impact of HIV infection on women. WIHS was launched in 1993 and eventually enrolled 3,768 women at six sites around the country, making it the largest study of its kind in the United States and probably the world. Despite a lack of research experience, Dr. Anastos won a grant to establish the Bronx/Manhattan WIHS consortium, which continues to this day.

Dr. Anastos describes the early years of WIHS as “heartbreaking,” since the researchers had little in the way of treatment to offer their patients. “The women knew they would probably die, but they still committed to the study, hoping that it would help their sisters,” she says. “It was pure altruism.”

Fortunately, highly active antiretroviral therapy (HAART) soon transformed AIDS into a chronic disease. “It was a miracle,” recalls Dr. Anastos. “People literally arose from their deathbeds.”

WIHS still had a critical role to play. People with HIV were surviving—only to fall prey to complications such as early dementia and atherosclerosis. “With antiretroviral therapy, the big question is whether HIV-positive women will have normal health and survival and if there are significant effects from the drugs themselves,” Dr. Anastos explains.

Over the years, WIHS researchers would address that question and many others in hundreds of papers covering everything from cancer to medication adherence to substance abuse in women with HIV. For her part, Dr. Anastos has studied subjects including survival and disease progression in women with HIV and the role of sex and race in response to infection and treatment.

Dr. Anastos, also co-director of the Einstein Global Health Center, has established the Rwanda Women’s Interassociation Study and Assessment (RWISA) in this Central African nation hit hard by HIV. RWISA is investigating the effects of antiretroviral therapy, rape, HIV infection and immune suppression on Rwandan women. Dr. Anastos has recently been awarded a grant to extend this research into Cameroon and Burundi.
“We’ve Got a Lot of Work to Do”
Combating HIV in Ethiopia

By the time Carol A. Harris, M.D., professor of clinical medicine in the department of medicine (infectious diseases), first visited Ethiopia in 2002, she had been caring for people with HIV for two decades. But nothing prepared her for what she saw in this impoverished East African country where more than one million of its 80 million citizens are infected with HIV.

While visiting a slum in Addis Ababa, the capital, she came across a 12-year-old girl with HIV in acute respiratory distress. “She died that night,” recalls Dr. Harris, “and it was a horrible, horrible death.”

At the young girl’s funeral, Dr. Harris was overcome with sadness. “AIDS puts a bright spotlight on the glaring inequities around the world, the grotesque differences in quality of life,” she says.

The end of the young girl’s life, however, led Dr. Harris to a new beginning. At the funeral, a local physician turned to her and said, “Come on, Carol. There are millions more people like her who are suffering. We’ve got a lot of work to do.”

Dr. Harris has since returned to Ethiopia many times, throwing herself into numerous anti-AIDS activities there. At the ALERT Hospital complex in Addis Ababa, for example, she has helped build a demonstration program of excellence that recently achieved its goal of enrolling 10,000 HIV-infected patients. Dr. Harris teaches in the program and carries out research supported by the Einstein Center for AIDS Research.

About six years ago, her Ethiopian colleagues asked Dr. Harris to help out at Hawassa College of Medicine and Health Sciences, located in southern Ethiopia and one of the country’s six medical schools. She and other Einstein faculty have taught and provided care there and are developing programs in trauma care, emergency obstetrics, oncology, and AIDS and malaria treatment. Dr. Harris has been bringing Einstein students to Hawassa for several years, thanks to funding from Einstein’s Global Health Fellowship program.

More recently, Dr. Harris was invited to China to help build model AIDS programs in Changchun, a city of about eight million that is the capital of Jilin Province. She has offered advice on setting up a program that will provide comprehensive primary care to AIDS patients in the province and will improve tuberculosis treatment and prevention.

Dr. Harris’ Chinese colleagues have also asked for her help in bolstering their medical education and training system.

Back in the Bronx, Dr. Harris, also an assistant professor of pathology, wants to help develop Einstein’s Global Health Center, which she envisions will one day encompass a center for international clinical research. “I want to help build programs that will outlive me,” she says.
After Antiviral Therapy: Living Longer But Aging Faster

Thanks to highly active antiretroviral therapy (HAART), people with HIV can now measure their life expectancy in decades rather than months. Unfortunately, HAART does relatively little to ease the virus’ impact on the brain. Despite early treatment, half of all people infected with HIV will eventually develop some degree of neurocognitive impairment, and up to 5 percent will develop full-blown dementia.

One problem is that HAART is rarely given early enough. HIV typically reaches the central nervous system (CNS) within two weeks of entering the body—well before the infection is usually diagnosed. Once in the CNS, HIV triggers a chronic, low-level inflammatory response that damages neurons and compromises the blood-brain barrier, a network of blood vessels that prevents harmful substances in the blood from crossing into the brain.

“HAART lowers viral load in the blood, which reduces the amount of new virus that can enter the brain, but it does nothing to stop the inflammation,” explains Joan W. Berman, Ph.D., professor of pathology and of microbiology & immunology.

Dr. Berman is one of several Einstein researchers studying HIV-associated neurocognitive disorders, collectively known as neuro AIDS. She focuses on HIV’s entry into the CNS and how infection and resulting inflammation damage CNS cells. Her group has identified a subset of monocytes as the blood cells that bring HIV into the CNS.

A few years ago, Dr. Berman found that HIV infects about 5 percent of the brain cells called astrocytes, which support the blood-brain barrier. In a follow-up study published last June in the Journal of Neuroscience, Dr. Berman and Eliseo Eugenin, Ph.D., assistant professor of pathology at Einstein, showed that even this low-level astrocyte infection can profoundly damage the blood-brain barrier. “The relatively few infected astrocytes emit toxic signals that kill neighboring uninfected astrocytes, ultimately weakening the blood-brain barrier and allowing harmful compounds to enter the brain,” she explains.

At present, there is no way to measure the progression of neuro AIDS. But in another study, Dr. Berman and colleagues identified a potential biomarker for neuro AIDS called PrPc (protease resistant protein).

PrPc is found in the cerebral spinal fluid levels of people with neuro AIDS—and the higher the PrPc level, the worse the dementia. This finding suggests that measuring PrPc could help predict the progression of neurocognitive decline and help evaluate the effects of experimental therapies. The National Institutes of Health recently awarded Dr. Berman a five-year, $2 million grant to further study PrPc.

“It’s wonderful that people with HIV are living to middle age and beyond,” says Dr. Berman, “but now they face a host of new medical issues. Infection with HIV appears to accelerate aging in important regions of the body, including the brain. I fear this is just the beginning of a new and uncertain era of AIDS.”
Einstein Supporters Help Raise AIDS Awareness on Broadway

Last fall, award-winning producer Daryl Roth organized a one-night benefit reading of The Normal Heart. This powerful and thought-provoking play by Larry Kramer, first produced in 1985, focuses on the AIDS crisis in New York City during the early years of the epidemic. After the reading, Ms. Roth felt strongly that “everyone has to see this.” So last April she brought a full revival of The Normal Heart to Broadway—which went on to win critical acclaim.

Ms. Roth is also an active board member of the Einstein National Women’s Division’s New York chapter and a Spirit of Achievement Award recipient. In a show of support for her, the audience at the Golden Theater on Tuesday evening, June 21, included about 50 members of the Einstein community, among them Harris Goldstein, M.D. ’80, director of the Einstein-Montefiore Center for AIDS Research (CFAR) and assistant dean for scientific resources. Proceeds from tickets purchased by the Einstein group benefited the Einstein-Montefiore CFAR and Dr. Goldstein’s research on HIV/AIDS.

“You felt like you were caught up in the vortex of fear and helplessness experienced during the early days of the AIDS epidemic,” says Dr. Goldstein, who is also professor of pediatrics (allergy and immunology) and of microbiology & immunology and holder of the Charles Michael Chair in Autoimmune Diseases. “These scenes brought back memories of the many AIDS patients I cared for. We all can relate to the dread and denial felt by otherwise healthy individuals who found a purple lesion of Kaposi’s sarcoma that was one of the first signs of AIDS and realized that this could be their death sentence. It’s impressive how the play still feels timely and relevant.”

Directed by Joel Grey and George C. Wolfe, The Normal Heart won three 2011 Tony Awards: for Best Revival of a Play, Best Featured Actor in a Play (John Benjamin Hickey) and Best Featured Actress in a Play (Ellen Barkin). Ms. Roth delivered the acceptance speech for the Best Revival of a Play award. The play’s 12-week run ended in July; a U.S. tour and London production are planned.
Research on stem cells and aging is an important element of Einstein’s strategic research plan. Einstein Benefactors Ira and Ingeborg Rennert have made a generous investment in the work of Einstein scientists who are involved in these key areas.
The work of two leading Einstein researchers—stem cell expert Eric E. Bouhassira, Ph.D., and Nir Barzilai, M.D., an authority on the aging process—is supported by two generous donors whose names appear in these researchers’ professorships: Ira and Ingeborg Rennert.

Widely known for their philanthropic endeavors in the United States and Israel, Ira and Ingeborg Rennert are Benefactors of both Einstein and Yeshiva University. The Brooklyn-born Mr. Rennert rose from salesperson for a typewriter company to successful and noted financier. He is currently chair of the Renco Group, Inc., a private, family-owned holding company that makes long-term investments in companies across a range of industries. Mrs. Rennert, like her husband, is a visionary philanthropist. She is also an active member of the New York chapter of Einstein’s National Women’s Division.

In 2007, the Rennerts made a gift of $4 million to establish two professorial chairs at Einstein: the Ingeborg and Ira Leon Rennert Professor of Stem Cell Biology and Regenerative Medicine and the Ingeborg and Ira Leon Rennert Professor of Aging Research. Dr. Bouhassira, professor of medicine (hematology) and of cell biology, and Dr. Barzilai, professor of medicine (endocrinology) and of genetics, were named the first holders, respectively, of these two endowed academic positions.

What prompted the Rennerts to invest in stem cell and aging research at Einstein? The couple hosted a dinner party at their home for Allen M. Spiegel, M.D., Einstein’s Marilyn and Stanley M. Katz Dean, and a group of leading Einstein supporters, in the summer of 2006. That evening, the conversation focused on potentially groundbreaking medical research at the College of Medicine.

“The concept of longevity, the idea that human beings can have longer life spans than was ever previously imagined or thought possible, has long been an interest of mine,” says Mr. Rennert. “I am also intrigued by the use of stem cells to reverse degenerative diseases. Ingeborg and I were fascinated to learn from Dean Spiegel about the exciting advances taking place at Einstein in these related areas of research.”

In the fall of 2007, at a special academic convocation held on Einstein’s Jack and Pearl Resnick Campus, the Rennerts participated in the formal ceremony investing Drs. Barzilai and Bouhassira as the holders of the two newly established Rennert Chairs.

“The Rennerts’ generous gift is a testament to their philanthropic vision and deep concern for the future of humanity,” said Dr. Spiegel. “Their decision to endow these two important academic positions is enabling two of our most distinguished investigators, Nir Barzilai, M.D., director of Einstein’s Institute for Aging Research, and Eric Bouhassira, Ph.D., director of our Center for Human Embryonic Stem Cell Research, to make significant strides in their research into the biological mechanisms that are responsible for both healthy

Below left: Ingeborg and Ira Rennert, long-time supporters of biomedical research at Einstein. Below: Nir Barzilai, M.D., on right, has identified at least three genes thought to promote longevity. Assisting him is laboratory technician John Lofrese.
Meet
THE SuperAgers!

Protected by genes and positive attitudes, Dr. Barzilai’s nonagenarian and centenarian research participants have their own theories about living longer to share with us younger folks (which is just about everyone).

SuperAger Irving Kahn, age 105, “The Eternal Businessman”:

“My secret to a long life is to wake up in the morning and have something to look forward to.”

SuperAger Irma Daniel, age 103, “The Pragmatic Survivor”:

“Work—I think it’s the best thing for not getting old.”

SuperAger Lilly Port, age 98, “The Powerhouse”:

“You have to be active, you have to be active physically. Exercises, walking—lots of walking—skiing, bicycle riding… Enjoy what you’re doing, enjoy your partner.”

Nir Barzilai, M.D.

Years before embarking on aging research, Nir Barzilai, M.D., worked in Third World medicine. While attending medical school he ran an emergency room in a refugee camp in Cambodia and worked at a hospital in Soweto, South Africa, during apartheid.

“Back then, everything I was doing was focused on people who were young and miserable—very different from the kind of people I study today,” he says.

His residencies in medicine and geriatrics sparked his interest in aging.

“I would look at my elderly patients and ask myself, ‘Why are they old?’ Dr. Barzilai recalls. “My colleagues were focused on their diseases, but I was interested in them in a different way and wanted to learn about the biology of aging.”

In 2010, Dr. Barzilai’s Institute for Aging Research was named one of the National Institutes of Health’s Nathan Shock Centers of Excellence in the Basic Biology of Aging—an honor accorded to only five centers nationwide, and one that comes with a $3.1 million, five-year grant from the NIH’s National Institute on Aging. Dr. Barzilai, director of the new Shock center, also received a separate MERIT Award from the NIH during 2010; this 10-year, $4 million award will fund efforts to use genetic and biological tools to insert human genes into a rodent in the hope that it will attain a healthy life span 50 percent longer than normal.

Dr. Barzilai’s contributions to human longevity research were honored in 2010 when he received the Irving S. Wright Award of Distinction in Aging Research, the highest award given by the American Federation for Aging Research.

The Most Important Risk Factor

Several of our most important health problems—cancer, diabetes, heart disease and Alzheimer’s disease—primarily affect middle-aged and elderly people, Dr. Barzilai notes. The role of aging in these adult-onset diseases is rarely examined, he says, even though aging is the major risk factor for developing all of them.

“We want to find ways to slow the rate of aging and thereby prevent most of these age-related diseases,” says Dr. Barzilai. “A side effect of this work might be that people would live longer, but that’s not really our goal. Our goal is healthy aging, which means growing old without being burdened by the diseases of aging.”

In 1998, Dr. Barzilai and his team began studying a group of more than 500 Ashkenazi Jews over the age of 95. Their aim: to identify the genetic influences that have delayed aging and kept these centenarians healthy while most of their peers long ago succumbed to age-related diseases. The team selected Ashkenazi Jews, whose ancestors came from Eastern Europe, because they are genetically homogenous, making it easier to spot genetic differences within the study population.
The centenarian study, formally known as the Longevity Genes Project, also recruited 700 of the offspring of the subjects between 60 and 85 years old and a control group of unrelated Ashkenazi subjects between 60 and 95 years old. By analyzing blood samples from the study participants, the researchers have begun uncovering the genetic influences on longevity. (Video interviews with four study participants are featured on SuperAgers.com, a website that also offers the latest information on more than a decade of aging research at Einstein.)

Dr. Barzilai and his colleagues so far have identified at least three genes thought to promote longevity. Centenarians and their children were much more likely than other people to possess particular variants (rare forms) of these “longevity genes.”

One such variant is a form of the cholesteryl ester transfer protein (CETP) gene. Centenarians were three times likelier to possess this unusual form of CETP, called CETP VV, than people in the general population. People with CETP VV have high levels of “good” HDL cholesterol along with unusually large particles of both good and “bad” (LDL) cholesterol, perhaps making those particles less likely to lodge in blood vessels.

People with CETP VV ran a lower risk of heart attacks and strokes, which may explain their unusual longevity. And compared with elderly subjects lacking the variant, centenarians possessing CETP VV were twice as likely to have good cognitive skills based on a standard test of thinking ability.

Ideally, such discoveries can be translated into drugs that mimic what longevity genes are doing for centenarians. And indeed, Merck is developing a drug that imitates the activity of CETP VV and is now in phase 3 clinical trials for boosting HDL cholesterol and decreasing LDL levels. Based on CETP VV’s favorable influence on cognitive ability, Dr. Barzilai believes that this drug should also be tested to see if it can help against Alzheimer’s disease.

Longevity genes may not be limited to those that tweak cholesterol or other biochemicals. “When I started working with centenarians, I thought we’d find that they survived so long in part because they were mean and ornery,” says Dr. Barzilai. “But we recently assessed the personalities of 243 of our centenarians and found qualities that clearly reflect a positive attitude towards life. Most of these centenarians are extroverted, optimistic, conscientious and easygoing. They also consider laughter an important part of life and have a large social network.”

So could there be a “personality/longevity” gene? “We don’t know, but we’re certainly going to look for it,” says Dr. Barzilai.

One thing is clear: Little about the lifestyles of centenarians provides guidance for living a long life. “Most of our centenarians have not done what their physicians have told them to do,” says Dr. Barzilai. “About 40 percent of them were overweight or obese, nearly 40 percent had smoked for more than 30 years and fewer than half of them reported exercising regularly. Perhaps their longevity genes help protect them against their poor lifestyle choices!”
**Eric Bouhassira, Ph.D.**

In November 1998, Einstein’s Eric Bouhassira, Ph.D., was studying how transcription (passing on DNA’s message to RNA so that proteins can be made) is regulated in blood cells. Then he read a paper in the journal *Science* that would change the direction of his scientific career.

It was big news: James Thomson, Ph.D., V.M.D., a developmental biologist at the University of Wisconsin, announced that he had isolated human embryonic stem cells from early embryos and grown them in the laboratory. Nearly 20 years earlier, scientists had achieved the same feat in mice, and Thomson had isolated embryonic stem cells from a rhesus monkey in 1995.

Embryonic stem cells have the unique ability to multiply indefinitely and are “pluripotent,” meaning they have the potential to develop into virtually any cell type in the body. Now that human embryonic stem cells could be grown in unlimited quantities, studied and manipulated, Dr. Bouhassira realized that an entirely new scientific discipline—regenerative medicine—had been created.

“The isolation of human embryonic stem cells opened up a big opportunity for translational research that could actually result in cures for diseases,” says Dr. Bouhassira. “If we could learn how to nudge these undifferentiated embryonic stem cells into more-specialized cells that could then be transferred to patients, we could address health problems ranging from sickle cell disease to Alzheimer’s.”

Soon after reading about the discovery, Dr. Bouhassira contacted Dr. Thomson and obtained samples of two of the five human embryonic stem cell lines developed in his lab. For help in culturing the cells, he hired a technician who had worked with Dr. Thomson. And to gain more knowledge about stem cells, Dr. Bouhassira sent a postdoc and a Ph.D. student to spend several weeks in the lab of one of Dr. Thomson’s collaborators, who had moved to the University of Minnesota.

Since 1998, interest in stem cell biology has grown exponentially, and so has Dr. Bouhassira’s prominence in the field. A professor in the departments of medicine and of cell biology, Dr. Bouhassira was the organizing force behind the three-year, $3 million center grant for human embryonic stem cell research given by the NIH.

Dr. Bouhassira’s work with blood-forming stem cells could lead to an unlimited supply of blood cells for use in bone marrow transplants and transfusions.
in 2005—one of only six such grants awarded. That center, which he directs and which is known as the Einstein Center for Human Embryonic Stem Cell Research, has helped advance fundamental knowledge of human embryonic stem cells.

Dr. Bouhassira’s leading role in stem cell research was recognized in 2007, when he was invested as the Ingeborg and Ira Leon Rennert Professor of Stem Cell Biology and Regenerative Medicine.

Changing Stem Cells into Red Cells

Pluripotent embryonic stem cells differentiate into more-specialized progenitor cells, referred to as “multipotent” stem cells, which can form several different cell lineages. Dr. Bouhassira’s stem cell work has focused on directing human embryonic stem cells to differentiate into multipotent hematopoietic (blood-forming) stem cells that, in turn, differentiate into red cells, T cells, platelets and all the other cell types that make up the blood. Practical applications for this research range from providing patients with immunologically compatible bone marrow transplants to turning hematopoietic stem cells into “factories” that produce red blood cells for patients needing transfusions.

Guiding embryonic stem cells to develop into fully functioning hematopoietic cells—and then coaxing those cells into forming cells suitable for transplantation or transfusion—has proven quite a challenge. Meanwhile, Dr. Bouhassira has turned some of his research energy toward a new type of stem cell, produced by breakthrough research in Japan.

In 2006, Shinya Yamanaka, M.D., Ph.D., reported that, by inserting four genes into skin cells, he was able to reprogram the skin cells into forming cells that were virtually identical to human embryonic stem cells. Dr. Bouhassira says that these stem cells, known as induced pluripotent stem cells, or iPSCs, may offer key advantages over human embryonic stem cells. (Dr. Yamanaka spoke at Einstein’s Lasker Lecture in October.)

“We’ve always known that, even if we could produce transplantable blood cells from embryonic stem cells, the recipient’s immune system might reject those blood cells as incompatible,” says Dr. Bouhassira. “One strategy would be to create ‘banks’ with enough different embryonic stem cells that they could be matched with recipients. But the most elegant solution for ensuring immunological compatibility would be to produce pluripotent cells from every patient—which is now possible thanks to iPSCs. These cells also are much less controversial than human embryonic stem cells, since human embryos are not involved in producing them.”

Thanks to the endowment provided by the Rennerts and funding from New York State, Dr. Bouhassira has created the Einstein Pluripotent Stem Cell Center. One of the center’s units is staffed by three scientists trained to produce iPSCs community for use by the entire Einstein stem cell community.

“We’re hoping to create unique stem cells derived from blood diseases like sickle cell anemia, hemophilia and thalassemia, all of which result from gene mutations or deletions,” says Dr. Bouhassira. “Once we obtain iPSCs, we may be able to cure them. This might involve correcting the gene defect in the iPS cells and then directing these

“We’re hoping to create stem cells derived from blood diseases like sickle cell anemia,” says Dr. Bouhassira.

‘corrected’ iPSCs to differentiate into hematopoietic stem cells, which would form healthy blood cells that we could transplant back into patients without fear of rejection.”

Dr. Bouhassira will soon report progress in his effort to cure genetic blood diseases. He and his colleagues made iPSCs from a patient with alpha thalassemia—a blood disorder caused by deletion of three genes, resulting in reduced hemoglobin production. The researchers successfully inserted the healthy version of one missing gene into iPSCs at the desired location in the genome—a correction that may be sufficient to normalize hemoglobin production. Equally important, this gene was inserted without recourse to viral vectors that might have made the iPSC cells unsafe for human use.

“We still have to achieve that next step, which involves making the corrected iPSCs develop into transplantable cells,” says Dr. Bouhassira, “but we’re optimistic that we’ll succeed.”
Axons by Day, Aesop at Night

At work, Tatyana Starikova Harris’ computer screen is awash in her drawings of biomedical minutiae, from mitochondria to histone tails to cell-signaling pathways. Later, this illustrator/graphic artist in the department of communications and public affairs switches from scientific rigor to whimsical creativity, sketching 12-year-old daughter Sasha at play and in repose and illustrating *Aesop’s Fables* and other children’s books.

“I always enjoyed drawing as a child,” says Tatyana, who grew up in Chernihiv, an ancient Ukrainian city of about 300,000 people. “My classmates would say, ‘Oh, your drawings are so nice,’ which would build up my confidence.”

Tatyana wanted to become an art teacher, and her education was perfect preparation for her job at Einstein. Pursuing a bachelor’s degree in fine arts and education at Shevchenko State University in Chernihiv, she studied biology, anatomy, physiology, internal medicine and pathology. “We took those courses to understand children’s development so we could detect problems in our students,” says Tatyana. “We also went to hospitals to learn to give injections so that, in case of war or other disasters, we could help administer first aid.”

When disaster did strike—the explosion of Ukraine’s Chernobyl nuclear reactor on April 26, 1986—Tatyana was in her first year at the university and 70 miles from the destroyed reactor. “We didn’t learn of the explosion until four days later, when European countries reported high radiation levels in the atmosphere,” Tatyana recalls. “Miraculously, because of how the wind was blowing, Chernihiv had lower radiation levels than other Ukrainian
cities farther from Chernobyl.”

But Tatyana and her city weren’t entirely spared. She notes that people in Chernihiv have died from radiation-related cancers, and that she has heard about the deaths of people she grew up with.

In the summer of 1994, after five years teaching art in an elementary school, Tatyana was vacationing in Moscow when she met Jonathan Harris, an American visiting the city as part of a tourist group. They married the next year, and Tatyana moved to the United States soon afterward.

“I didn’t want to teach here because I was self-conscious about my English, and communicating with kids is so important,” says Tatyana. Instead, she earned a certificate in computer arts at Westchester Community College. She has worked at Einstein for the past six years, creating illustrations for Einstein magazine, newsletters, brochures, invitations and other printed material.

For her artwork, Tatyana favors watercolors but also paints digitally with the computer, using either Photoshop or the Painter program. Her illustrations for children’s books have been exhibited at Manhattan’s Jefferson Market Library, and her Aesop’s Fables drawings will be shown this fall.

Bar Harbor, ME, is a favorite place to paint, and one of her family’s annual summer visits there resulted in an unfinished portrait of a seagull (above, right). “The gull was transfixed by my handbag—posing there perfectly still just a few feet from me,” Tatyana recalls. “Then, before I could finish painting, Sasha came running up and scared it away.”
Commencement is a beginning, not an end. Though their med school days are over, the members of the Class of 2011 are taking on new roles as residents and researchers. At the Albert Einstein College of Medicine 2011 Commencement, professors, colleagues and mentors helped prepare graduates for this transition by sharing their accumulated wisdom.

The advice from Yeshiva University President Richard M. Joel: “Don’t point society to the new normal, point them to a new horizon and lead us there.” He reminded graduates that they can’t do it alone and they don’t have to—“You have each other.”

In his commencement address, AIDS pioneer Dr. Anthony Fauci of the National Institute of Allergy and Infectious Diseases (NIAID) told those assembled that “the mosaic of our knowledge and experiences is eternally unfinished.” He said that to this day he feels the discomfort of this productive transitions.
tension but that “it has become part of me, and I believe it has helped me greatly rather than hurt me in any way.” (For more, see sidebar at left.)

Allen M. Spiegel, M.D., Einstein’s Marilyn and Stanley M. Katz Dean, congratulated members of Einstein’s third graduating class, the Class of 1961, who were celebrating their 50th reunion. Paul Wachter, M.D. ’61, recalled the rustic setting—actually, a construction site—where class members received their diplomas.

Dean Spiegel then awarded 185 M.D. diplomas and 59 Ph.D. diplomas; 13 Ph.D. candidates also received M.D. degrees.

With help from Stephen Goldstone, M.D. ’79, president of the Alumni Association, Dean Spiegel presented the following Einstein Alumni Awards: Mark A. Hardy, M.D. ’62, the Dominick P. Purpura Distinguished Alumnus Award; Charles S. Peskin, Ph.D. ’72, the Distinguished Ph.D. Alumnus Award; Lawrence J. Brandt, M.D., professor of medicine (gastroenterology & liver diseases) and of surgery, the Honorary Alumnus Award; Louis M. Aledort, M.D. ’59, and Marvin Kirschner, M.D. ’59, Lifetime Achievement Awards; and Stephen H. Lazar, Ed.D., the Lifetime Service Award for a Non-Alumnus.

Dean Spiegel closed with the traditional Prayer of Maimonides. In view of this year’s Commencement theme of endless education, these words rang especially true: “May there never arise in me the notion that I know enough, but give me the strength and leisure and zeal to enlarge my knowledge.”

**ON THE WEB**
www.einstein.yu.edu/commencement2011
Reunion 2011 Honors the Class of 1961

Blue skies greeted Einstein alumni who gathered in the “Big Apple” for Reunion 2011. Returnees included members of the Class of 1961, the third class of Einstein graduates, who came to celebrate their 50th Reunion, as well as those who graduated in years ending in 1 and 6.

The festivities got off to a rousing start at Lincoln Center’s Avery Fisher Hall on Wednesday, June 1, when members of the Class of 1961 marched in the Class of 2011’s Commencement exercises. Those pioneering Einstein grads were recognized with spirited applause by Allen M. Spiegel, M.D., Einstein’s Marilyn and Stanley M. Katz Dean; the newly minted graduates; and assembled guests.

That evening, the Class of ’61 headed downtown to the Yeshiva University Museum at the Center for Jewish History. There Dean Spiegel joined them for the Welcome Dinner, held in honor of their milestone anniversary.

Alumni from all nine reunion classes came together on Thursday, June 2, for the Gala Reunion Dinner at the Grand Hyatt Hotel. The emotion was palpable as former classmates reconnect, many lingering well after the evening’s official end.

The occasion was enriched by the presence of three Einstein faculty members who taught the Class of 1961: Isabelle Rapin, M.D., professor in the Saul R. Korey Department of Neurology and in the department of pediatrics; Katherine S. Lobach, M.D., professor emerita of pediatrics and associate professor emerita of epidemiology & population health; and David J. Hamerman, M.D., distinguished university professor emeritus of medicine (geriatrics).

Stephen Goldstone, M.D. ’79, the outgoing president of the Alumni Association, passed the baton to incoming president Jack Stern, Ph.D. ’73, M.D. ’74. Kenneth A. Schiffer, M.D. ’61, who served on the Alumni Association Board of Governors for many years, received the Alumni Association’s 2011 Lifetime Service Award, which was presented to him by Dean Spiegel and Dr. Goldstone.

Reunion 2011 culminated with Alumni Day on Campus, Friday, June 3. Harris Goldstein, M.D. ’80, the Charles Michael Chair in Autoimmune Diseases, director of the Einstein-Montefiore Center for AIDS Research,
assistant dean for scientific resources, and professor of pediatrics (allergy & immunology) and of microbiology & immunology, welcomed guests to a morning symposium held in the Michael F. Price Center for Genetic and Translational Medicine/Harold and Muriel Block Research Pavilion’s Ethel and Samuel J. LeFrak Auditorium.

The symposium addressed research and clinical strategies in personalized medicine, cervical cancer prevention, women’s health and diabetes. Presenters included Dean Spiegel; Mark H. Einstein, M.D., M.S. ’05, associate professor of obstetrics & gynecology and women’s health (gynecological oncology) and of epidemiology & population health; Sylvia Wasserthel-Smoller, Ph.D., the Dorothy and William Manealoff Foundation and Molly Rosen Chair in Social Medicine, professor of epidemiology & population health, and principal investigator in the Women’s Health Initiative at Einstein; and Jill Patricia Crandall, M.D., professor of clinical medicine in the department of medicine (endocrinology).

Following lunch in the Lubin Dining Hall, guided tours of the Jack and Pearl Resnick Campus gave visitors a closer look at how Einstein has changed since their medical school days. Led by Michael J. Reichgott, M.D. ’65, Ph.D., professor of medicine (administration) and chair of the conflict of interest office, and Salvatore P. Ciampo, senior director of facilities management, the tours included stops at the Clinical Skills Center; the laboratory of Matthew Levy, Ph.D., assistant professor of biochemistry; and the anatomy laboratory in the Leo Forchheimer Medical Science Building. E
1 Members of the Class of 1976, including Edward R. Burns, M.D. ’76, executive dean.

2 Michael Goldfischer, M.D. ’91, and Debra Bren-Goldfischer.

3 Beth Weinstein Nash, M.D. ’81; Jodie Hurwitz, M.D. ’81; and Gilad Kuperman, M.D. ’81, Ph.D. ’81.

4 Members of the Class of 1996.

5 Stephanie Green, M.D. ’81, with Edward R. Burns, M.D. ’76, executive dean.

6 Selma Targovnik, M.D. ’61, and Martin Brownstein, M.D. ’61.

7 From left, Suanne Mallenbaum, M.D. ’89, Ph.D. ’89; Ramon Vazquez, M.D. ’86; Wendy Elenbaas; Steven Reich, M.D. ’86; and Jodi Reich.
1 Members of the Class of 2001.
2 Members of the Class of 1971 with Jack Stern, M.D. ’74, Ph.D. ’73, incoming president of the Alumni Association, and Dean Allen M. Spiegel.
3 Touring the campus on Alumni Day on Campus with Michael Reichgott, M.D. ’65, Ph.D., far left.
4 Touring the laboratory of Matthew Levy, Ph.D., far left, in the Price Center/Block Research Pavilion.
5 Burt Meyers, M.D. ’61, and Amnon Weinstock, M.D. ’61.
6 From left, Judith Rodewald; Russell A. Rodewald, M.D. ’66; Lenore Grubman; and Jerold Grubman, M.D. ’66.
7 Earle B. Weiss, M.D. ’61, and Ruth V. Weiss.
Homework Optional: Einstein Supporters Become Medical Students for a Day

About 30 Einstein Overseers and guests recently attended “Mini–Med School”—a chance to gain a hands-on understanding of the educational elements that go into the making of an Einstein physician.

Held in the Clinical Skills Center on May 11, Mini–Med School was a collaborative effort among Martha Grayson, M.D. ’79, senior associate dean for medical education; Robert W. Marion, M.D. ’79, director of Einstein’s Children’s Evaluation and Rehabilitation Center; and Paul Marantz, M.D., associate dean for clinical research education. Ruth L. Gottesman, Ed.D., chair of Einstein’s Board of Overseers, and Allen M. Spiegel, M.D., the Marilyn and Stanley M. Katz Dean, served as program advisors, and the Office of Institutional Advancement helped coordinate the day’s activities.

First came lunch in the Harry H. Beren Conference Room and opening remarks from Stephen Baum, M.D., senior associate dean for students, Dean Spiegel and several current Einstein students. Then the Mini–Med Schoolers went to their first class: “Doctor-Patient Communications 101.”

The session was led by Dr. Grayson and by Felise Milan, M.D. ’88, director of the Clinical Skills Center. Dr. Milan helps direct the all-important “Introduction to Clinical Medicine” course, which teaches first-year students about doctor-patient issues and building communications skills.

After getting some insight into how doctors can better interact with their patients, the attendees broke into small groups and applied what they had learned by communicating—just as actual Einstein medical students do—with actors playing the roles of patients.

Next, the group moved on to “Molecular and Cellular Foundations of Medicine: The Family Genetics Conference.” Dr. Marion was joined by his patient Alena Galan, 12, and her mother, Marcia. They helped him demonstrate the doctor-patient dynamics and professional skills involved when a clinician is faced with helping a family cope...
with a potentially life-threatening genetic condition.

Dr. Marantz led the final session, “Screening for Cancer: Do We Know It’s Good, or Must We Show It’s Good?” Participants enjoyed using an audience-response system to tabulate their votes on various multiple-choice questions. It soon became clear that where human behavior is concerned, the outcomes we might expect are not always the ones we get.

The afternoon culminated in a “white coat ceremony” modeled after the “On Becoming a Physician” ceremony, a rite of passage for first-year Einstein students. As Associate Dean Glenn Miller called their names, each new “graduate” was “cloaked” with a personalized physician’s lab coat, signifying his or her successful completion of the Mini–Med School curriculum.

Dr. Gottesman, who conceived the idea for Mini–Med School and also participated, called it a “powerful” experience. “It made all of us appreciate how much time and effort our faculty puts into preparing our students to be skilled and caring physicians—the kind of doctors who really listen to their patients.”

While their medical education may have been fleeting, the participants left Mini–Med School with lasting impressions of the journey all Einstein students take in fulfilling their dreams of a career in medicine.
Help Us Transform the Future of Medicine...

Give to the Einstein Alumni Association Annual Fund

A scholarship can empower a gifted Einstein student to become:

- a caring and curing physician
- a world-class investigator working to unravel the mysteries of human health and disease

A well-designed student life program can enhance that student's educational experience.

The Einstein Alumni Association Annual Fund provides both scholarships and student life programs. And your support makes it all possible!

Please consider making your gift today. You'll find a return envelope in the center of this magazine. Or, to make a contribution online, go to www.einstein.yu.edu/alumni, click “support Einstein,” then click “online giving.” Designate your gift or pledge to Albert Einstein College of Medicine. You don’t have to be an Einstein graduate to contribute.

“For more information, please contact the Office of Alumni Relations at 718.430.2013 or alumni@einstein.yu.edu.”

— Eric Tanenbaum, Alumni Scholar Class of 2014
Computerized brain-training exercises can help people 70 and over think and focus better, walk faster and become more organized. Those are the latest findings, published in the *Journal of Gerontology*, of aging specialist Joe Verghese, M.B.B.S., Einstein’s first Murray D. Gross Memorial Faculty Scholar in Gerontology.

The endowed academic position was established by Yolaine G. Randall, a speech therapist who passed away in 2009. Mrs. Randall left more than $2.9 million to Einstein, and, in accordance with her wishes, the funds were used to establish the position; it was named in memory of her beloved late father, Murray Gross, a successful New York businessman. (Mrs. Randall’s family has a long history of generosity to Einstein. In 2005, at Mrs. Randall’s request, a classroom in the Arthur B. and Diane Belfer Educational Center for Health Sciences was dedicated in honor of her late mother, Sarah Rosenthal Gross, who was also a donor to Einstein.) Dr. Verghese was formally invested at the Academic Convocation hosted by Allen M. Spiegel, the Marilyn and Stanley M. Katz Dean, in September 2011.

Dr. Verghese has found a positive correlation between computer-prompted cognitive learning in focusing and organizing, and increases in normal walking speed for seniors age 70 or older. His research shows that multitasking (problem-solving and talking while walking) adds to long-lasting improvement in mental and physical function. “I’m interested in bringing a broad neurological perspective to aging research, including insight into the causes of disability and frailty in older people,” says Dr. Verghese, who is also a professor in the Saul R. Korey Department of Neurology at Einstein and clinical director of the Einstein Aging Study, funded by the National Institutes of Health (NIH).

Einstein’s division of cognitive & motor aging, which Dr. Verghese directs, has just begun a major multiyear study, funded by the NIH, which will enroll 450 older adults living in Westchester County, NY. Researchers led by principal investigator Roee Holtzer, Ph.D., associate professor in the Saul R. Korey Department of Neurology, will use innovative lab technology to unobtrusively measure brain activity of the subjects as they walk. Says Dr. Verghese, “The findings from this study could help develop interventions to prevent mobility decline and disability in older people.”

Dr. Verghese’s designation as the Murray D. Gross Memorial Faculty Scholar in Gerontology provides ongoing financing for his team’s important work (and will do the same for future Gross Faculty Scholars at Einstein). Though Dr. Verghese never met Mrs. Randall—described by a family friend as “a bright, independent and positive person”—he is very grateful for her help. “These are tough funding times,” he says, “so it’s wonderful to have the financial support to pursue our research agenda.”

Randall Bequest Helps Turn Back the Clock on Aging

Seniors whose brains got a computerized workout ended up with better concentration, organization and walking speed. Joe Verghese, M.B.B.S., standing, led the study.
Exceptional talent, creativity and determination were featured at the 57th Annual Spirit of Achievement Luncheon on May 5, hosted by the New York chapter of Einstein’s National Women’s Division at the Plaza Hotel in New York City. More than 350 Women’s Division members and guests turned out for the event, which benefited the group’s current initiative to support innovative research on breast, ovarian, uterine and cervical cancers at the Albert Einstein Cancer Center (AECC). “The Women’s Division is privileged to partner with Einstein in advancing medical research that has the potential to save lives and improve health and well-being for women everywhere,” said Kathy K. Weinberg, National Women’s Division president.

This year’s Spirit honorees included New York real estate entrepreneur Barbara Corcoran, interior design icon and fashion trailblazer Iris Apfel, broadcast journalists Natalie Morales and Jill Martin of NBC’s Today, and Joseph A. Sparano, M.D., professor of medicine (oncology) and of obstetrics & gynecology and women’s health at Einstein, faculty supervisor of the AECC Clinical Trials Office, and an internationally recognized expert on breast cancer. Willie Geist, host of Way Too Early with Willie Geist and a co-host of Morning Joe on MSNBC, contributed his time and talent as emcee for the third consecutive year.

When Allen M. Spiegel, M.D., the Marilyn and Stanley M. Katz Dean, presented the Spirit Award to Dr. Sparano, he was assisted by Mary Jane Happy, a breast cancer survivor and patient of Dr. Sparano’s, and her daughter, Emily Miller, an M.D./Ph.D. candidate at Einstein.

1 Spirit honorees, from left: Jill Martin, Iris Apfel, Natalie Morales and Barbara Corcoran.
2 Einstein Overseers Linda Altman and Rita Rosen; Alexandra Landes, Mrs. Rosen’s granddaughter; and Kathy Weinberg, president, Einstein National Women’s Division.
3 Honorary Einstein Overseer Emily Fisher Landau, founding member and current board member, Einstein National Women’s Division, and New York chapter executive committee member; and Ruth L. Gottesman, Ed.D., chair, Einstein Board of Overseers.
“Dr. Sparano’s caring and compassion, both as a physician and as a human being, along with his brilliance as a clinical researcher, helped me find the courage to face my cancer head on,” said Ms. Happy. Her remarks followed a video documenting her experience, produced for the occasion by Einstein Overseer Rita Rosen, a past president of the National Women’s Division.

“It was a great afternoon,” said Mara Sandler, co-president of the New York chapter. “We were inspired and we raised funds to help the incredible researchers at the Einstein Cancer Center progress in their efforts to combat breast and gynecological cancers.”

“We are grateful to our luncheon chairs, Jackie Harris Hochberg, Renée Steinberg and Andrea Stark, for their hard work in making today a success,” said New York chapter co-president Mindy Feinberg.

Family Day 2011
Hosted by the Einstein National Women’s Division
New York chapter on August 21, at the Ross School in Bridgehampton, NY, the 22nd Annual “Family Day in the Hamptons” raised funds to benefit research on women’s health and cancers at the Albert Einstein Cancer Center.

Einstein’s National Women’s Division
A force in philanthropy at Einstein for nearly 60 years, the National Women’s Division is conducting a fundraising initiative to support research on women’s health and cancers at the Albert Einstein Cancer Center.

To join the Einstein National Women’s Division’s initiative to support research in women’s health and cancers, or to learn more about the Women’s Division, please contact Janis Brooks at 718.430.2818 or janis.brooks@einstein.yu.edu.

To read more about the Women’s Division: www.einstein.yu.edu/home/donors/WomensDivision.asp
The Einstein Men’s Division turned 50 this year. To mark this milestone, the division dedicated its 2011 Men’s Division Golf & Tennis Tournament and Dinner to honoring its past chairs.

Proceeds from the event, held on June 13 at Wykagyl Country Club in New Rochelle, NY, benefited the Men’s Division Research Scholars Program (MDRSP), the division’s current initiative that helps fund the career development of Einstein physician-scientists involved in translational research.

A group of 16 Men’s Division past chairs spanning four decades took part in a special awards ceremony during the dinner program. Einstein Overseer Philip Rosen, who served as chair from 1964 to 1965, was accompanied by his wife, Einstein Overseer Rita Rosen, who delighted the audience with her recollections of how her husband helped lead the effort to form the Men’s Division in 1961.

Helene Wolloch, whose late husband, Zygfryd B. Wolloch, was chair from 1965 to 1966, attended in honor of her husband. Representing late past chair Matthew R. Kornreich, who served from 1975 to 1977, were his son-in-law and Einstein Overseer Samuel Weinberg, his grandson Andrew Weinberg and his nephew Thomas Kornreich.

“We’re pleased to recognize these trailblazers, whose influence looms large in the history of the Men’s Division and of Einstein’s growth as a center for cutting-edge medical research and education,” said Raymond S. Cohen, the division’s current chair. “In our efforts to promote the medical school’s life-saving mission over the last 50 years, they have led the way.”

“As we pay tribute to our proud past, we also look to the future,” Mr. Cohen added. “We’re grooming a generation of young leaders who will take the Men’s Division to new heights of philanthropic achievement for Einstein.”

“Inspired by the vision and talent of its past chairs, the Men’s Division has forged a vibrant partnership with Einstein that continues to thrive after half a century,” noted Dean Spiegel. “That is a remarkable legacy. It’s also...”
clear that the young professionals who will shape the next 50 years of volunteer leadership at Einstein share their predecessors’ passion, intelligence and creativity.”

Also among the distinguished dinner guests were several Men’s Division Research Scholars and their mentors, as well as the two faculty advisors for the MDRSP: Harry Shamoon, M.D., associate dean for clinical and translational research, professor in the department of medicine (endocrinology) and director of Einstein’s Institute for Clinical and Translational Research; and Paul R. Marantz, M.D., associate dean for clinical research education and professor of clinical epidemiology & population health and of clinical medicine (general internal medicine). Victor L. Schuster, M.D., chair of the department of medicine, professor of medicine (nephrology) and of physiology & biophysics, and the Ted and Florence Baumritter Chair in Medicine, gave keynote remarks highlighting the impact of translational medicine on patient care.

Einstein’s Men’s Division
Since 1961, the Men’s Division of Albert Einstein College of Medicine has provided volunteer leadership to encourage the growth and development of the College of Medicine. Its current fundraising initiative is the Men’s Division Research Scholars Program.

ON THE WEB
www.einstein.yu.edu/home/donors/MensDivision.asp
**1950s**

Marion Zucker Goldstein, M.D. ‘59, M.S., writes, “I am a Distinguished Life Fellow of the American Psychiatric Association, and a Fellow of the American College of Psychiatry Class of 1959. I have been in geriatric psychiatry, my subspecialty for 25 years, as a professor in the department of psychiatry, New York State University at Buffalo. I have contributed to making geriatric psychiatry flourish. My daughter Lillian Schapiro, M.D. ‘91, is an OB-GYN and a mohelet, and married to a constitutional professor at Emory. She is the mother of Ruth, 14, Rebecca, 14, and Sarah, 8. I take care of my developmentally impaired daughter Naomi, and make life as pleasant and engaging as possible for her.”

Donald Kline, M.D. ‘59, writes, “I retired from the JFK Hospital in Edison, NJ, medical staff in 2010, and am now an emeritus. I have served as an executive committee member of the board of trustees at JFK Medical Center for the past 20 years. I have kept my New Jersey license and CMEs up to date, continue to learn as much as I can about current medical practices and am still looking for employment.

**1960s**

Morrie Stampfer, M.D. ‘63, writes, “This month completes my fifth year of working full-time in the cardiology division of Jacobi Medical Center. I have no plans to retire—I’m having too much fun! I was honored to be elected to the Leo Davidoff Society in May 2011; this election recognizes outstanding achievement in the teaching of medical students.”

Edward Lynn, M.D. ‘65, writes, “I am still enjoying retirement in Reno, NV, after years of academia, program development, administration and, finally, practicing what I preached in the private sector.”

Barbara Barlow, M.D. ‘67, FAAP, FACS, will be awarded the U.S. Centers for Disease Control’s CDC Foundation Hero Award in October. The award was established in 2005 to correspond with the foundation’s tenth anniversary celebrating a “Decade of Heroes.” It recognizes an individual who has made a significant contribution to improving the public’s health through exemplary work in advancing the CDC’s mission of promoting health and quality of life by preventing and controlling disease, injury and disability. Dr. Barlow is being cited for her injury-prevention work, which has become the Injury Free Coalition for Kids (www.injuryfree.org).

Daniel Nussbaum II, M.D. ‘67, writes, “I have retired after a career as one of the pioneers of developmental pediatrics. The last eight years were in solo private practice in New Bedford, MA. They were the happiest of my career. The retirement is partially for health...”
At the Gala Reunion Dinner: William Clusin, M.D. ‘76, Ph.D. ’76, left, and Gordon Klein, M.D. ’71.

reasons. I have a neuropathy that so far has confounded every neurologist and urologist I have seen (suggestions are welcome). My wife, Alice, and I plan to spend our time commuting between Rochester, NY, and Los Angeles. Alice is an internationally known Judaic needlework designer and part-time Jewish family educator. My daughter, Yapha Mason, is the lower-school librarian at Brentwood School in Los Angeles and has one daughter, Eve. My son, Joe, is a successful film director in Hollywood. You can look up his filmography (yes, that is what they call it) on the Internet. He has one son, Leo.”

Robert Sherwin, M.D. ‘67, the C. N. H. Long Professor of Medicine, chief of the section of endocrinology at Yale School of Medicine and director of the Clinical and Translational Science Awards–funded Yale Center for Clinical Investigation and the Diabetes Endocrinology Research Center at Yale, has received the American Diabetes Association’s 2011 Albert Renold Award. The award is presented “to an individual whose career is distinguished by outstanding achievements in the training of diabetes research scientists and the facilitation of diabetes research.” One of Dr. Sherwin’s trainees was Harry Shamoon, M.D., Einstein’s associate dean for clinical and translational research.

Joseph G. Tuchman, M.D. ’67, lives in Monsey, NY, and started a private practice in dermatology in Monroe, NY (Orange County), that has been thriving since 1973. He retired from actively seeing patients in 2006, but works as a consultant at his former practice two mornings a week. He and his wife of 45 years, Gail, own an RV and travel a lot. They have three wonderful sons, all married, and ten grandchildren. His youngest son, Jay Tuchman, M.D. ’03, is an assistant professor of pediatric anesthesiology at the University of Pittsburgh Medical Center in Pittsburgh, PA.

Alumni Leadership Brunch
On Sunday, May 1, Dean Spiegel hosted the annual Einstein Alumni Leadership Brunch at the Price Center/Block Research Pavilion.

The event celebrated alumni whose cumulative lifetime gifts total $25,000 or more, placing them at the Dean’s Club level of giving. Those alumni who have now reached giving levels of $25,000, $50,000, $100,000 and $150,000 were presented with special leadership awards by the dean. Also recognized were alumni who made a gift of $1,000 or more to Einstein this year.

Guests enjoyed a lecture by John J. Foxe, Ph.D. ’99, director of research at Einstein’s Children’s Evaluation and Rehabilitation Center (CERC) and professor in the department of pediatrics and in the Dominick P. Purpura Department of Neuroscience. Following brunch and Dr. Foxe’s talk, guests were invited for a tour of the CERC.

At the Gala Reunion Dinner: William Clusin, M.D. ’76, Ph.D. ’76, left, and Gordon Klein, M.D. ’71.

From left: Einstein Century Award recipient Russell W. Cohen, M.D. ’’85, with Dean Allen M. Spiegel, M.D.

Einstein Century Award recipient Donald H. Wolmer, M.D. ’60, with Dean Spiegel.

Einstein Circle Award recipient Sheila Tanenbaum, M.D. ‘66, and Alumni Association President Jack Stern, M.D. ’74, Ph.D. ’73.

Einstein Circle Award recipient Kenneth A. Schiffer, M.D. ’61, with his wife, Marcia.

Einstein Dean’s Club Award recipient Miriam Levy, M.D. ’79, with Dean Spiegel.
1970s

Henry Klapholz, M.D. ’71, has been named dean for clinical affairs and professor of obstetrics and gynecology at Tufts University School of Medicine, after serving as chair of obstetrics and gynecology at MetroWest Medical Center in Framingham, MA, for 10 years and as associate professor of obstetrics and gynecology at Harvard.

Neil Meade, M.D. ’71, writes: “After 32 years in private practice in Maryland I took a break, but that didn’t work. Now I am almost one year into my second career, doing what I always wanted: working in Crownpoint, NM, on a Navajo reservation doing primary care, ER, inpatient and whatever else needs to be done. We are one hour from nowhere, working with Third World equipment, where people often can’t afford gas to go to the doctor and have no electricity or running water. It is an amazing and rejuvenating experience. On a lighter note, my daughter Jamie Meade, M.D. ’07, is now teaching and serving as an ER doctor at the University of Nevada, Las Vegas; my daughter Brooke is a soon-to-be-third-year medical student. If you are ever in northwestern New Mexico, drop by and remember where medicine was 50 years ago. I am also running the student rural rotation program here, in case any Einstein students are interested, or if any Indian Health Service scholarship holders are looking for work to pay off their commitment.”

Victoria Stern, M.D. ’71, reports that she has been very happily retired for more than 14 years. She has stayed busy as a volunteer reading to first graders, doing taxes for seniors and sewing in the costume shop of a local operetta company. She writes, “I continue to enjoy living the California life in the sun with hiking/walking and bicycling as daily activities. I have one son, a singer/performer/director/teacher, who lives locally and is working on his teaching credential. Life is good.”

Miriam Tasini, M.D. ’71, has been elected president of the American College of Psychoanalysts; she took office in June. Dr. Tasini is a professor at UCLA Medical School and the training and supervising psychoanalyst at the New Center for Psychoanalysis in Los Angeles.

Miriam Levitt-Flisser, M.D. ’71, was recently elected mayor of Scarsdale, NY. Dr. Levitt-Flisser has a pediatric practice in Bronxville, NY, where she is also medical director of the Bronxville School District. Besides serving on the voluntary faculty at Einstein, she is a volunteer for ServNY, a New York State emergency response team, and a member of the medical executive committee at Montefiore Medical Center. Dr. Levitt-Flisser is an honorary founder/Dean’s Club member at Einstein. She and her husband, Harvey, have three grown children and three grandchildren.

At the Gala Reunion Dinner: Leslie Blachman, M.D. ’72, and Paul Blachman, M.D. ’71.
ALUMNI PROFILE: SIDNEY SOBEL, M.D. ‘61, FACR
Clinical Associate Professor of Radiation Oncology
University of Rochester School of Medicine and Dentistry

Einstein magazine recently talked with Sidney Sobel, M.D. ‘61, who attended his 50th class reunion in June. It was his first visit to the Einstein campus in nearly 50 years. “When I was a medical student,” said Dr. Sobel, “the campus consisted of the dorm, one classroom building, the library, Van Etten and Jacobi Hospitals and the Kennedy facility. It was astonishing to come back and see so many new buildings on campus and Van Etten in its new role.” He summed up his impressions with one word: “Wow!” Dr. Sobel is a radiation oncologist in Rochester, NY, and a fellow of the American College of Radiology.

“When Sidney Sobel was applying to medical school, his advisor at Harvard encouraged him to strongly consider Albert Einstein College of Medicine. “He said I’d be a pioneer in the third class of a new medical school founded on principles he considered most important: clinical values, responsibility to mankind, service to the community,” recalls Dr. Sobel. “He said the students would be the kind who viewed medicine as a calling. I took that very much to heart.” The advisor assured his protégé that his education at Einstein would be “second to none” and that the school’s special emphasis on clinical psychiatry “would help mold a more sensitive and insightful physician.”

His advisor was right on all counts, says Dr. Sobel: “The education I got at Einstein was extraordinary, both in basic science and in clinical practice. The faculty was exceptional.” As an example, Dr. Sobel describes Professor Arthur Gilman as one of the great teachers of pharmacology: “His course brought together the basic sciences and clinical medicine, and it continues to serve me to this day.”

After completing a surgical residency at the Bronx Veterans Administration Hospital, Dr. Sobel practiced for a few years until a serious back injury forced him to find a new specialty. In 1970, the Worcester, MA, native moved to Rochester, NY, to become the first fellow in multidisciplinary oncology at the University of Rochester’s Strong Memorial Hospital. A residency in radiation oncology followed.

At Strong, Dr. Sobel realized that outlying areas of Rochester lacked cancer care: “Patients would forgo treatment because of the long distances they had to travel.” So he and his wife, Barbara, mortgaged their home and gathered other assets, and in 1983, he built and staffed the first of three rural outpatient radiation oncology facilities that he would establish over the next ten years. The success of this ambitious undertaking “remains a source of enormous pride and pleasure for me,” he says.

Dr. Sobel has been in practice for 35 years in Rochester and, at age 75, has no plans to retire. In 2004, the Rochester Business Journal named him Physician of the Year, an honor he values highly. But his greatest reward is “the feeling I experienced while standing in line at Home Depot, and a former patient came up to me and said, ‘You may not remember me, but I was once told I might lose my life to cancer. You told me that getting well takes place between the ears, and that we’d work as a team to help me get well. And here I am, 20 years later.’ There’s nothing like that feeling.”

Dr. Sobel’s advice to students considering a medical career: “If you choose medicine as a calling, you’ll be certain to find joy in your work, and fulfillment in your service to the profession and to society.”
Norman J. Cohen, M.D. ’74, has retired from the full-time practice of orthopaedic surgery after practicing for more than 35 years in Illinois. The Cohens have downsized and moved to South Florida. Dr. Cohen now spends four to six months practicing orthopaedic surgery on the Navajo Reservation in Gallup, NM, at the Gallup Indian Medical Center of the Indian Health Service, followed by four to six months of “R and R” in South Florida. He notes, “A welcome change after being in the private sector for so long!”

Steven Mandel, M.D. ’75, recently spoke at the 2011 Sjögren’s Syndrome Foundation National Patient Conference in Reston, VA, and co-authored an article in the Sjögren’s Quarterly (volume 5, issue 4, fall 2010), “Cognitive Impairment and Neuropsychological Testing in Sjögren’s.”

Frank Gillingham, M.D. ’77, reports that his son Alex was drafted in the eleventh round of the 2011 Major League Baseball draft by the Colorado Rockies.

Joseph Barbuto, M.D. ’78, has a private practice in psychiatry with a specialty in psychiatric oncology and is a clinical associate professor of psychiatry at Weill Medical College of Cornell University, an associate attending psychiatrist at New York–Presbyterian Hospital and a consultant at Memorial Sloan-Kettering Cancer Center. He writes, “I enjoy teaching medical students, residents and clinical fellows at these institutions.” Dr. Barbuto is also the medical director of the Gestalt Center for Psychotherapy and Training in New York City.

Steven J. Weisman, M.D. ’78, has been awarded the American Pain Society’s 2011 Jeffrey Lawson Award for Advocacy in Children’s Pain Relief. The award, which recognizes outstanding efforts to improve the management of pain in children, was presented at the society’s annual meeting in May. Dr. Weisman is the Jane B. Pettit Chair in Pain Management and professor of anesthesiology and pediatrics at the Medical College of Wisconsin and medical director of the Jane B. Pettit Pain and Palliative Care Center of the Children’s Hospital of Wisconsin, both based in Milwaukee. Most recently, his work has focused on the impact of chronic pain on families, treatment of pain with yoga and mindfulness meditation and the interrelationship of obesity and chronic pain.

Ronald B. Cohen, M.D. ’79, writes, “Having become disenchanted with pharmacotherapy and the medical model, I’ve been transitioning my practice to focus on relationship difficulties, intergenerational conflict and ‘the normative crises’ of the family life cycle. I specialize in helping families and couples in crisis and transition, particularly situations caused by severe and chronic medical and psychiatric illness, trauma and disability. On the home front we are looking forward to two graduations next spring, our son from college and our daughter from high school. Pete the dog will help ease the launching-phase transition.”

At Alumni Day on Campus, from left: Ruth Stolz, M.D. ’81; David Newman, M.D. ’81; and Norland Berk, M.D. ’64.
1980s

Ronald DePinho, M.D. ’81, has been named president of the University of Texas MD Anderson Cancer Center in Houston, TX. Dr. DePinho was previously the director of the Belfer Institute for Applied Cancer Science at the Dana-Farber Cancer Institute in Boston, MA, and professor of medicine (genetics) at Harvard Medical School.

Joshua Lamm, M.D. ’83, has a private practice in psychiatry in Manhattan and Queens County, NY, and is the medical director of the TMS (transcranial magnetic stimulation) Center of Queens in Fresh Meadows, NY (tmcenterofqueens.com).

Linda Broyde Haramati, M.D. ’85, writes, “Our Einstein family is expanding. In addition to my husband, Nogah, and me being on staff in the radiology department at Montefiore, our son-in-law, Alexander (Avi) Pekurovsky, graduated from Einstein in the Class of 2011, and his wife, our daughter Adina, entered Einstein this fall with the Class of 2015.”

Lewis Stein, M.D. ’86, writes, “Our 25th wedding anniversary was in May 2011. Every so often, I tease my wife about how I was late for graduation and missed being in the graduation photo. We have four girls, ages 22, 19, 15 and 7. Our oldest daughter is married and living in Israel, and is the mother of a little boy born in August 2010. After 18 years in anesthesia private practice, I recently joined an ambulatory surgery center and office-based anesthesia practice. In addition, I started working part-time in two New York City Health and Hospitals Corporation hospitals in Queens, to keep in touch with the complicated hospital cases.”

Norman Saffra, M.D. ’88, FACS, FAAO, is pleased to announce the opening of his Long Island office in Hewlett, NY. Dr. Saffra is also director of ophthalmology at Maimonides Medical Center in Brooklyn, NY, and clinical professor of ophthalmology at Mt. Sinai School of Medicine in Manhattan.

Daniel Zanger, M.D. ’88, FACC, is in private practice in cardiology in Midwood, Brooklyn. He is also on staff at Maimonides Hospital and is an assistant clinical professor of medicine at Downstate Medical Center. Dr. Zanger and his wife, Alyssa (Srulowitz), have five children.

Gerard D’Aversa, M.D. ’89, traveled to Accra, Ghana, earlier this year with his daughter Jaclyn, a junior at Barnard College. The purpose of their 10-day trip: to work in the North Western Eye Clinic, where they provided clinical care and eye-disease screenings for children and adults and conducted educational programs. Dr. D’Aversa performed sight-restoring surgery on many adult patients. He also brought medical supplies and equipment and trained clinic director Dr. Michael Gyasi to perform modern cataract surgery using a Phacoemulsification (Phaco) machine. Dr. D’Aversa’s trip was part of Unite for Sight, a nonprofit organization providing eye care worldwide and offering hands-on public health opportunities for volunteers. Dr. D’Aversa is a partner in Ophthalmic Consultants of Long Island (OCLI), an ophthalmology practice in Valley Stream, NY.
1990s

**Dina Levin, M.D. ’93**, has moved from Portland, OR, to Randolph, VT, where she started working as an obstetrician-gynecologist at Gifford Medical Center, a critical-access hospital in central Vermont, on May 31. Previously, she was at Gateway Women’s Clinic in Portland, OR, and was department chair at Providence Portland Medical Center. She was accompanied on her move by her husband of 12 years and their two sons, ages 10 and 9.

**Robert J. Stern, M.D. ’93**, has joined the Foreign Service as a regional medical officer for the United States Department of State. In this capacity, he will work overseas out of U.S. embassies, caring for American diplomatic personnel and advising the Department of State on health-related matters. He will be joined at his overseas posts by his wife, **Gillian Schweitzer, M.D. ’94**, and their two children, Trevor, 12, and Talia, 9.

**Etta Eskridge, M.D. ’95, Ph.D., FACP**, was recently named director of palliative medicine and founder of the program at Westchester Medical Center, Valhalla, NY. Prior to joining the staff at WMC, Dr. Eskridge had run programs in clinical medicine in underserved and resource-poor villages in Malawi, Africa, since 2006. Dr. Eskridge is also a trustee on the board of Global AIDS Interfaith Alliance, a nonprofit organization working to alleviate the burden of poverty and HIV/AIDS in Malawi. For more information: www.thegaia.org.

2000s

**Michelle (Yadegari) Yasharpour, M.D. ’03**, completed her internal medicine training in June 2010 and will be starting a fellowship at the University of California, Irvine, in allergy and immunology. She writes, “I took off the year to welcome my son Jacob Banayahu, who was born October 27, 2010. He was a miracle baby—a hypoxic ischemic encephalopathy baby who underwent the whole-body hypothermia therapy (cooling protocol) and is now doing amazingly.”

**Joshua Sisser, M.D. ’05, and Rachel Bakst Sisser, M.D. ’05**, welcomed their third child, Sophie Michelle Sisser, on June 11.

**Alexander Zev Nelken, M.D. ’06**, is board certified in anesthesiology and working at Beth Israel Medical Center’s Kings Highway Division in Brooklyn, NY.

**Jeffrey Siegelman, M.D. ’07**, and his wife, Melissa, are proud to announce the birth of their first child, Emma Rose, on January 24. Dr. Siegelman completed his residency in emergency medicine in June and joined the faculty at Emory University in Atlanta, GA.

**Robyn Gartner, M.D. ’08**, moved to Philadelphia, PA, for her intern year and writes, “I ended up meeting a wonderful guy who is now my fiancé. I completed one year at Montefiore radiology before transferring to the University of Pennsylvania to be closer to him. We are getting married in November 2011.”
In June, Allen M. Spiegel, M.D., Einstein’s Marilyn and Stanley M. Katz Dean, hosted events in San Francisco and Los Angeles. Both were well attended by Einstein alumni and parents of current Einstein students.

“Einstein in San Francisco” was held at the Payne Mansion. After a brunch, Mark Reiss, M.D. ’59, welcomed the group and introduced Dean Spiegel, who provided an “Einstein Update,” answered questions from attendees and facilitated a lively discussion.

“Einstein in Los Angeles” was held at the Skirball Cultural Center. New Alumni Association Board of Governors member Farshad Nosratian, M.D. ’83, welcomed fellow alumni and parents and introduced the dean, who again facilitated discussion and fielded questions, and shared a student recruitment video that the audience enjoyed.

“It was a pleasure to spend time with Einstein alumni and parents on the West Coast,” Dean Spiegel noted. “Our events in San Francisco and Los Angeles were wonderful opportunities for members of the Einstein family to reconnect with the College of Medicine and each other.”

Glenn Miller, associate dean for institutional advancement, made concluding remarks at both events. He was enthusiastic about promoting greater alumni participation from coast to coast and suggested several ways that Einstein graduates could become involved in the lives of future students, current students and younger alumni.

For more information about regional programming for Einstein graduates, or to see how you can help Einstein students, please contact Emily Snyder, director of alumni relations and annual giving, at 718.430.2922 or emily.snyder@einstein.yu.edu.

Jeremy Mazurek, M.D. ’08, has completed his internal medicine residency at Jacobi Medical Center and will be serving as chief medical resident at Jacobi for the upcoming year. He has been accepted to the University of Pennsylvania Cardiovascular Disease Fellowship beginning in July 2012.

Miriam Sheinbein, M.D. ’08, completed her residency in family medicine at the University of California, San Francisco, and started a primary care research fellowship there on July 1. Her husband, Yaron, opened a restaurant in their neighborhood in San Francisco last year called Local Mission Eatery. Miriam and Yaron welcomed their second child, Rimon, in November 2010. Rimon’s big brother, Cruv, is now 3-1/2.

In Memoriam
We sadly acknowledge the passing of the following Einstein alumni. We honor their memories and extend our deepest condolences to their families and friends.

Neil Barton, M.D. ’62
Arthur Feldman, M.D. ’59
Arthur Kraut, M.D. ’61
Soo Jin Lee, M.D. ’99
Joseph J. Okon, M.D. ’73
In September 1987, a Newsweek cover story made Celeste Carrion the poster child for pediatric AIDS. The serious-looking nine-and-a-half-year-old from a gritty Bronx neighborhood had lived longer than anyone else infected with HIV from birth. Both her parents were heroin addicts. Her mother had died from AIDS four years earlier, and her father was terminally ill with the disease. Every other week, their grandmother took Celeste and her five-year-old brother Eddie, also HIV-positive, to the pediatric AIDS service at Einstein, directed by Arye Rubinstein, M.D., a pioneer in treating children with AIDS.

Thanks to antiretroviral drugs such as AZT, the much-feared pediatric AIDS epidemic didn’t occur: Administering the drugs to pregnant HIV-positive women almost always spared their babies from infection. But those drugs came too late for Celeste. In October 1989, at age 11 years and 7 months, she lost her lifelong struggle against HIV. Her brother Eddie had died two years earlier, at age six.

“Celeste and Eddie were an inspiration to all of us for their humility and quiet resignation,” Dr. Rubinstein recalls. “They had to deal with the ostracism faced by all AIDS patients, children and adults, in the early years of the epidemic. And yet they expressed their gratitude for every sign of compassion, for every handshake and hug.”
Help us transform human health. 
Be part of the Einstein Legacy.

Your bequest will help Einstein continue to provide outstanding medical education and research that holds the key to lifesaving treatments and potential cures for disease.

And you’ll have the satisfaction of knowing you helped Einstein build a healthier future for generations to come.

To learn more about making a bequest in your will and the advantages of other tax-favored legacy gifts to Einstein, please contact:

Glenn Miller
Associate Dean for Institutional Advancement
718.430.2411 or glenn.miller@einstein.yu.edu

Henry Rubin, J.D.
Senior Director of Planned Giving
917.326.4959 or hrubin@yu.edu
CONGRATULATIONS!

On Wednesday, June 1, New York’s Avery Fisher Hall was the site of great rejoicing: After years of hard work, 185 Einstein med students had finally earned their M.D. diplomas; 59 doctoral students were given Ph.D. diplomas; and 13 students received one of each!

The graduates entered the next phase of their lives accompanied by sage advice from Richard M. Joel, Yeshiva University’s president; Allen M. Spiegel, M.D., Einstein’s Marilyn and Stanley M. Katz Dean; and eminent AIDS researcher and commencement speaker Anthony S. Fauci, M.D., director of the National Institute of Allergy and Infectious Diseases. See page 42.