



Gratitude of the Greatest Magnitude

In Less Than Four Years, NYU Langone Garner an Unprecedented \$1 Billion in Philanthropy

The main section of *The New York Times* on Sunday, June 5, 2011, brought some startling and refreshingly good news, though not in the form of an article. A full-page ad—framed in violet, New York University’s signature color, and graced with a photo of NYU Langone Medical Center’s main campus at twilight—announced a momentous philanthropic milestone: in less than four years, the Medical Center had raised an unprecedented \$1 billion. Sporting the headline “Thanks {a billion},” the ad was styled after those featured in various venues as part of the Medical Center’s ongoing marketing campaign, and it saluted those responsible for such remarkable generosity: “our extraordinary friends and benefactors.”

The sum represents more than 66,000 separate gifts, ranging from less than \$1 to four gifts of \$100 million or more, from some 51,000 donors, a community of patrons that includes members of our own faculty and staff. The gifts date from September 2007, soon after Robert I. Grossman, MD, the Saul J. Farber Dean and CEO, took the helm of the Medical Center, to June 2011.

“This is a truly historic moment for our Medical Center,” notes Kenneth G. Langone, chair of NYU Langone’s Board of Trustees. “We have the most extraordinary friends and benefactors who, through their generosity of spirit and action, have helped propel NYU Langone Medical Center to the forefront of clinical care, scientific research, and medical education. Their belief in us and in the work we do is unsurpassed. We thank them from the bottom of our hearts.”

(continued on page 4)

As NYU Langone Expands Programs to Improve Patient Outcomes, Its Reputation Shines

Recent Data Place Medical Center Among the Nation’s Top Leaders in Quality and Safety

Statistics tend to be eye-glazers, but when they reassure patients about the quality and safety of their medical care, they are music to the ears. A recently launched web site, www.whynotthebest.org, enables

“We’ve been working very hard for several years on improving processes and safety across virtually every area of patient care, and our outcomes are now among the best in the country.”

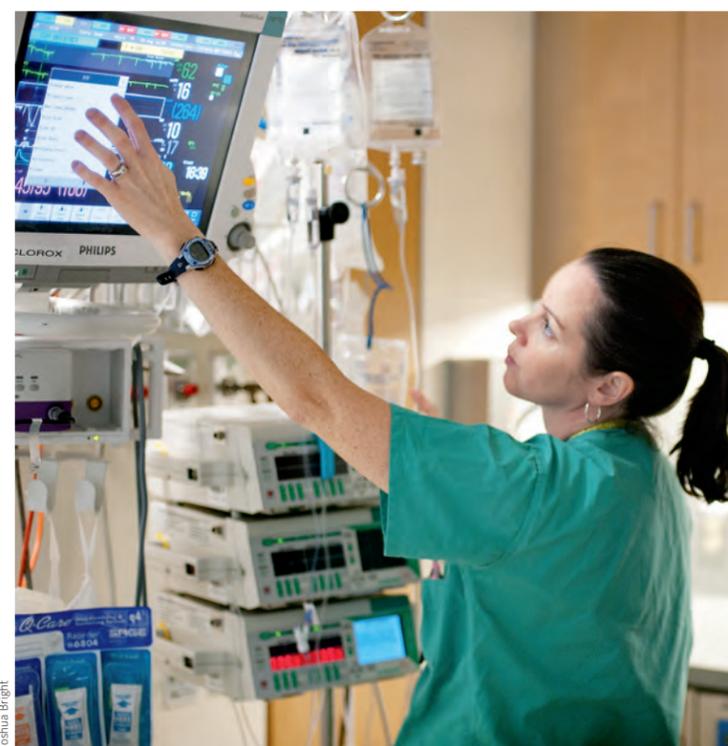
the public to track and compare the performance of any hospital in America—over 4,500 institutions in all—that provides data to the federal Centers for Medicare and Medicaid Services (CMS).

How does NYU Langone Medical Center fare? In several areas that are considered key outcome indicators of quality care—including 30-day mortality rates and “process of care” measures for patients with a heart attack, heart failure, or pneumonia—NYU Langone stands shoulder-to-shoulder with the country’s leaders.

“Our mortality rates are among the lowest in the nation, and that’s quite an accomplishment,” says Martha Radford, MD, professor of medicine and chief quality officer. “We’ve been working very hard for several years on improving processes and safety across virtually every area of patient care, and our outcomes are now among the best in the country. We deliver truly excellent care to our patients.”

With an average Overall Recommended Care score of 98.5%, NYU Langone is among the top 10% of hospitals nationwide. This score encompasses 28 different Hospital Quality Alliance (HQA) measures—

(continued on page 5)





From the Dean & CEO

On the road to becoming a world-class institution, there are many first-class milestones, and some of the biggest in recent months are highlighted in this issue.

In June, we announced that NYU Langone Medical Center has raised an unprecedented \$1 billion in philanthropy over the last four years. The sum represents 66,000 separate gifts from some 51,000 donors—an astonishing outpouring of generosity, and a measure of the dedication our friends and benefactors have for this institution.

We've learned that NYU Langone is among those hospitals nationwide with the lowest mortality rates for heart attack, heart failure, and pneumonia—a remarkable achievement in quality and safety standards.

In its 14th annual "Best Doctors" issue, *New York* magazine recognized more than 120 physicians, including 12 department chairs, from NYU Langone as among New York City's finest practitioners.

In March, Benlysta, the first new drug for lupus in half a century, won FDA approval. Two of our researchers, Dr. Jill Buyon and Dr. Anca Askanase, played an instrumental role in its testing.

Our excellence, you could say, ranges from soup to nuts. At this year's Association for Healthcare Foodservice's conference, a dish created by our chefs beat out 21 entries from around the country to win top honors. Thanks and congratulations to all!

Bob

Robert I. Grossman, MD



Yusie Kim and Cornel Ruhland put the finishing touches on their award-winning creation.

The Violet Team Takes Home the Gold

The brightly colored soy paper tropical rice roll filled with grain-fed chicken and accompanied by a crisp organic vegetable salad wouldn't be out of place in a trendy restaurant, but it's being served only at NYU Langone Medical Center. The creation of Yusie Kim, retail services supervisor, and Cornel Ruhland, chef de cuisine, the dish beat out 21 entries from around the country to win top honors at the Association for Healthcare Foodservice's annual conference, held in June in Phoenix.

According to the rules, each dish had to include Tyson boneless, skinless chicken thighs (Tyson sponsored the competition) and follow strict requirements for calorie, fiber, sodium, and fat content. In addition, each finished plate, including the entrée, sides, sauces, and garnish, had to cost less than \$5. Surprisingly, says Ruhland, "it's not too difficult" to work within such limitations. "You focus on the quality of the basic products—ripe fruits and vegetables, fresh cilantro—so that you don't have to add salt or other seasonings." The biggest challenge was meeting the fiber requirements, admits Kim, a dietitian. They solved it by adding red lentils and more vegetables, such as broccoli.

"We didn't have the usual kitchen environment for production of the recipe—just two burners and a limited number of pots, pans, and utensils," recalls Kim. Instead of refrigerators, they had to use ice for product cooling. Ruhland and Kim had practiced to make sure they could create the required five portions of their meal in the allotted 75 minutes, paring down the recipe to keep the preparation as simple as possible.

Five teams were chosen for the final competition, a heated showdown reminiscent of the popular TV program *Iron Chef*. For the first time, two of the teams came from the same institution, NYU Langone Medical Center. Two other rivals came from sister facilities within the same health-care system, one of which was gunning for the gold for a third time. The fifth team had also placed in a previous year's competition.

"This was a really innovative use of the mandatory ingredient, with an amazing look," says Betty Perez, senior director of Food and Nutrition Services. "It had that Asian flair and was the only cold entrée." Perez listened in as spectators sampled the entries. Everyone agreed: Ruhland's and Kim's creation deserved the gold medal.

Although the dish won't show up on patients' meal trays, our guests will have a chance to taste it themselves. "We'll definitely use it for special catered events," says Perez, "and we'll do a retail promotion so that customers can enjoy the selection from Tisch Hospital's first-floor cafeteria."

A Post-Father's Day Cancer Screening Event That's Not Just for Dads

Saturday, June 25, brought temperatures in the 80s, and most of the middle-aged men who lined up outside NYU Langone Medical Center's Clinical Cancer Center were dressed for the heat—short-sleeved shirts and brimmed hats. But this was no fun summer outing. These men were taking advantage of a free, week-long screening for prostate-specific antigen (PSA), a blood test designed to spot prostate cancer in its early stages.

The number of men who arrived—by 8:30 a.m., scores had shown up—speaks to the grim statistics. Each year, prostate cancer strikes more than 200,000 Americans, claiming the lives of nearly 30,000. Early detection is the key, which means that for some of these men, the day may well have been a lifesaver.

Men with normal readings will have their results mailed to them within four to six weeks, while those with elevated PSA levels—over 2.5 for men between 40 and 60, and above 4.0 for men older than that—will be contacted by phone. This is the seventh year NYU Langone has participated in the annual screening, held during the week after Father's Day. Sponsored by the *New York Daily News*, the event takes place at eight hospitals. Last year, 9,000 men were tested citywide, including more than 2,000 at NYU Langone. In addition to the Clinical Cancer Center, our ambulatory care centers at Columbus Medical in Queens and Trinity Center in lower Manhattan participated as well.

"Since widespread PSA testing began in the early 1990s, the death rate from prostate cancer has dropped every year," notes Samir Taneja, MD, the James M. Neissa and Janet Riha Neissa Associate Professor of Urologic Oncology, who oversees the program and is on staff at the Smilow Comprehensive Prostate Cancer Center. "If we want to maintain these good outcomes, this is something we need to keep doing. We realize that not all cases of prostate cancer are lethal, but it's only through early detection that we can make intelligent decisions about who requires treatment and who doesn't."

More Than 120 NYU Langone Physicians Named among "Best Doctors" in New York

In its 14th annual "Best Doctors" issue, published in June, *New York* magazine recognized more than 120 physicians from NYU Langone Medical Center as among New York City's finest practitioners. This year's roster included 12 department chairs, who were noted for their expertise in cardiothoracic surgery, dermatology, general surgery, neurosurgery, obstetrics and gynecology, ophthalmology, orthopaedic surgery, otolaryngology, plastic surgery, radiation oncology, rehabilitation medicine, and urology. The issue also profiles Timothy Rapp, MD, associate professor of orthopaedic surgery and chief of the Division of Orthopaedic Oncology. The article features the amputation of a patient's lower leg to remove a soft-tissue sarcoma, a rare cancer that occurs in connective tissue. The surgery was performed because the condition was not sensitive to radiation or chemotherapy treatments and had a high risk of recurrence.

In all, the magazine listed 1,144 physicians in 63 specialties from all five boroughs and several surrounding counties. They were drawn from a roster of more than 6,000 practitioners featured in *Top Doctors: New York Metro Area*, an annual guidebook published by Castle Connolly Medical Ltd. For a complete list of NYU Langone physicians who were honored, visit <http://nymag.com/bestdoctors/>.



New York Magazine

news roundup

A Kinder, Gentler Way to Repair a Heart Valve

Thanks to Minimally Invasive Techniques, Cardiac Surgery Causes Less Heartache for Surgeon and Patient Alike

Of the thousands of patients he has treated over the years, Aubrey Galloway, MD, the Seymour Cohn Professor and chair of the Department of Cardiothoracic Surgery at NYU Langone Medical Center, still remembers the man from Michigan. Doctors had told him that his mitral valve, the one that regulates blood flow from the lungs to the upper chambers of the heart, was malfunctioning. Fortunately, there was a relatively simple fix. Unfortunately, surgeons in Michigan said this wasn't an option.

Typically, mitral valve repair begins with a sternotomy, in which the breastbone is cut and the chest is spread to gain access to the heart. But the patient was in his mid-80s, which made local surgeons wary. "They were hesitant because of the risks," explains Dr. Galloway. Through relatives, the man learned that NYU Langone had an alternative, so he flew to New York to learn more about it from Dr. Galloway.

NYU Langone has long been a national center of excellence for valve surgery. "We have a 30-year history doing mitral valve repair," explains Dr. Galloway. "We were one of the first groups in the US to do them." That reputation was enhanced in the 1990s when Dr. Galloway and his colleagues devised less traumatic surgical techniques. They perfected a method for accessing the heart valves through a small incision between two ribs in the right chest. That incision is usually all the surgeon needs to repair or replace a valve. Best of all, no bone is cut, so the body is less traumatized. Cardiothoracic surgeons at NYU Langone have also found minimally invasive stent graft techniques invaluable for repairing many aneurysms of the aorta.

As with most minimally invasive procedures, the payoff for the patient is less bleeding, less pain, faster recovery, and fewer complications. There's even a cosmetic advantage. "Recently we operated on a 34-year-old woman," Dr. Galloway recalls. "We made a small incision in the crease at the base of the breast. No one could tell she even had surgery."



Rene Perez

When Dr. Galloway began using new techniques in 1996, he knew he had a kinder, gentler way to perform valve repair or replacement, but there was one unanswered question: Would it be applicable to the majority of patients? Today, NYU Langone uses minimally invasive approaches for over 85% of patients requiring a single valve repair. Over 3,000 people have had successful valve surgery here with this procedure. For those who are not suitable candidates, Dr. Galloway and his surgical team can employ the traditional approach with equal ease. His OR has become a classroom for cardiac surgeons from around the world, more than 400 of whom have observed him and his team in action.

People who once may not have qualified for heart valve procedures now do. "Where we've had the most impact, in terms of improvements and outcomes, is among high-risk patients over 70 who require aortic

valve replacement," says Dr. Galloway. As healthcare improves, that segment of the population is growing, and as a byproduct of aging, there is a gradual degeneration of the aortic heart valve, which helps regulate blood outflow. It used to be a catch-22: those who most needed aortic valve surgery (people over 70) were considered the least eligible to have it. Even now, notes Dr. Galloway, some elderly people are discouraged from considering it. "I see a lot of people in this situation," he explains. "Many were either being denied surgery because their doctors thought it was too risky or the patients themselves thought so. But now they have options. We can do the heart operation and give them a very good life expectancy."

Whatever happened to the man from Michigan? Dr. Galloway sums up the outcome succinctly and modestly: "I did the valve repair, and he did very well." He smiles. "In two weeks, he was back home."

"I'm Not Ready to Die"

With a New Drug for Melanoma Tested at NYU Langone, a Patient Triumphs against All Odds

Fourteen years after Brenda Uhl had been diagnosed with melanoma, it metastasized to her lungs, liver, and then, her brain. Doctors at the medical institution that had treated her the entire time told her there was nothing more they could do and that she should get her affairs in order. They gave her three to six more months—tops.

But then, in August 2010, Uhl found her way to Anna Pavlick, DO, associate professor of medicine and dermatology, and director of the Melanoma Program at NYU Langone Medical Center's Cancer Institute. During her first visit to NYU Langone's Clinical Cancer Center, Uhl—worn out from long bouts of chemotherapy and radiation—whispered to Dr. Pavlick: "I'm 46 years old. I'm not ready to die."

"I wasn't sure I could help her," Dr. Pavlick recalls, "but I felt I had to try." Dr. Pavlick put Uhl on an experimental drug,

ipilimumab, which showed promise. If detected early, melanoma can be surgically removed, even cured. But once it has spread to the organs, it's notoriously difficult to treat and usually fatal. Last year, according to the National Cancer Institute, melanoma struck 68,000 Americans and claimed 8,700 lives. The incidence of the disease is on the rise, which experts believe may be attributable to excessive exposure to ultraviolet rays, including the artificial ones used by tanning salons.

Unable to walk or hold down food at the outset of her treatment, Uhl could feel her strength returning after each of the four 90-minute infusions she has received thus far. For some patients, the drug can cause unpleasant side effects, but Uhl experienced only slight abdominal swelling. Scans bore witness to the miracle under way: the tumors had disappeared from her brain and were retreating from other once-vulnerable parts of her body.

Uhl was soon back at work full-time, and only three months after her treatment began, she was vacationing in Cancun with her husband and four children. She brought back a souvenir for her physician: a blue sombrero embroidered with horseshoes for good luck. "Dr. Pavlick and her team gave me hope and inspired me," says Uhl. "They gave me my life back."

That the FDA approved ipilimumab (under the trade name Yervoy™) in March was little more than a footnote for Dr. Pavlick and her colleagues, who operate the Interdisciplinary Melanoma Cooperative Group, which played a key role in testing

the drug. NYU Langone conducted one of the earliest trials for ipilimumab nearly a decade ago and has since used it to treat more than 250 people. The product of more than two decades of research, the breakthrough drug is the first of a new class of medicines that don't directly destroy cancer cells, like traditional chemotherapy and radiation, but essentially "release the break" on the immune system. Specifically, the drug blocks a protein known as cytotoxic T-lymphocyte antigen 4 (CTLA-4) on the surface of T cells. It's the protein that inhibits T cells from their cancer-fighting rounds. With most patients succumbing to the disease within three to six months, Dr. Pavlick and her colleagues were more than a little encouraged by the fact that over 25% of their patients were still alive two to six years after starting treatment.

NYU Langone Medical Center's Cancer Institute, an NCI-designated cancer center, now has its sights set on clinical trials that would combine ipilimumab with other agents, including chemotherapy, radiation, and targeted therapies. It also hopes to uncover factors in the patient's blood or tumors that could predict whether they would benefit from immunotherapy. "People come to large academic medical centers like ours because they're looking for cutting-edge treatment," notes Dr. Pavlick. "We have 'ipi' to offer them, and if that doesn't work, we might even have something better."

Web Extra: for an article about Benlysta, the first drug for lupus in half a century, which NYU Langone also played a role in testing, see "Hope Finally Arrives for Those with Lupus" at <http://newsandviews.med.nyu.edu/>.



David Lubarsky

Dr. Anna Pavlick (left) holds the sombrero her patient Brenda Uhl (right) gave her as a souvenir after the vacation she and her family took in Mexico to celebrate her remission.

"If I Could Just Lose Five More Pounds . . ."

Q&A with Dr. Andrea Vazzana, Clinical Co-director of NYU Langone's Eating Disorder Service

About 11 million Americans suffer from one of the two most common eating disorders: anorexia (refusal to maintain minimally normal body weight and an intense fear of gaining weight) and bulimia (recurrent binge eating followed by inappropriate compensatory behaviors, such as self-induced vomiting). Most are adolescent girls, whom Andrea Vazzana, PhD, clinical assistant professor of child and adolescent psychiatry and psychiatry, counsels at the NYU Child Study Center as they grapple with intense self-scrutiny and potentially fatal attitudes and impulses toward food. She recently shared her insights with news & views.



Dr. Andrea Vazzana stands next to a figure whose outer lines, drawn in black by one of her patients, show how the young woman perceives her body. The inner lines, drawn in purple by Dr. Vazzana, reflect the actual outline of her patient's body. Dr. Vazzana uses this exercise to correct patients' distorted perceptions of their shape and weight, which are common features of eating disorders.

Are eating disorders primarily an American phenomenon?

Western countries have similar rates of these disorders. Eating disorders are less common in non-Western countries, but they are becoming more prevalent with increased globalization and exposure to Western media.

Eating disorders have been on the rise for decades, and so has obesity. Are the two related?

The disparity between our culture's beauty ideal, which favors thinness, and the abundance of food available to us sends mixed messages that can lead to unhealthy eating patterns.

How and when do eating disorders tend to develop?

It's rare for eating disorders to begin prior to puberty. Bulimia usually begins in late adolescence and early adulthood. The average age of onset for anorexia is a bit earlier, at age 17, with peaks at ages 14 and 18. If you think about what's happening at those two ages, it coincides with the beginning of high school and college. The onset of the disorder is

often associated with these kinds of transitions, or some other stressful event.

Are there personality differences between people with anorexia and those with bulimia?

People who develop bulimia tend to be more outgoing, emotionally reactive, and impulsive, whereas people with anorexia tend to be socially and emotionally restrained, risk avoidant, and perfectionistic. Anorexia has a 5 to 10% mortality rate. It's the deadliest of all psychiatric disorders. Among patients who survive, about half regain most or all of their weight, 30% show some improvement with periodic relapses, and 20% have a chronic course.

What treatments are available?

Bulimia is usually treated with a combination of antidepressants and about a five-month course of cognitive-behavioral therapy (CBT). Anorexia is treated with CBT, interpersonal therapy, or with teens, the Maudsley Method, which is a family-based therapy. The first phase of the Maudsley Method focuses on coaching parents

to refeed their child in spite of her protests. During the second phase, the patient begins to resume responsibility for eating, and weight is restored. Finally, when the teen has reached a healthy, stable weight, lingering adolescent issues and family dynamics are addressed. Within that, therapy can look at issues that may have sparked the onset of the disorder, including the patient's core beliefs that underlie the disorder—for example, that everything would be perfect if she could just lose five more pounds.

What drew you to this specialty?

My college roommate struggled with bulimia at the same time that I was taking a class in abnormal psychology. I wanted to learn more about the disorder so that I could better understand what she was going through. As a woman, eating disorders were also something I could relate to in terms of the pressure in our society to be thin.

What can parents do to prevent their children from developing an eating disorder?

It's important for parents to intervene early because the longer the illness lasts, the more entrenched it becomes. Eating disorders usually begin with dieting. Parents should discourage their children from dieting and promote having a healthy body that has enough energy to do the things they love doing. Parents should also monitor their own unhealthy eating patterns and critical comments they make about their bodies.

What are common misconceptions about eating disorders?

It's important to separate the person from the illness. More and more, research is showing that there's a genetic component to these disorders. So it's much more complicated than someone saying to herself, "I want to be really skinny, so I'm going to stop eating."

When someone with an eating disorder looks in the mirror, what does she typically see?

It's likely that she hyperfocuses on what she considers to be relative imperfections. I remember one patient who was disgusted by the way the skin under her arms jiggled. The problem was that she'd lost so much weight that she had loose skin. But to her, it was: "I'm too fat. Look at all this skin here—it's gross." Like other people with eating disorders, this patient then judged her self-worth primarily on her body shape and weight, rather than her other attributes. One of our main treatment goals is to challenge such beliefs. Eventually, patients are able to catch and counter their irrational thoughts on their own.

For more information or to make an appointment, please call 212-263-8916.

Web Extra: for an article about an art exhibit, recently mounted on NYU Langone's campus, that portrays eating disorders in all their complexity, see "Now You See Her—Now You Don't" at <http://newsandviews.med.nyu.edu/>.

Gratitude of the Greatest Magnitude *(continued from page 1)*

Empowered by these gifts, the Medical Center has undertaken a dramatic transformation of its campus infrastructure, the most ambitious in its history. This includes the construction of a new Center for Emergency Services, four new patient elevators, the Smilow Comprehensive Prostate Cancer Center, the Yung Hsia Women's Pavilion, and a new Critical Care Unit—all in our flagship clinical facility, NYU Langone's Tisch Hospital—and major renovations at the Elly Hammerman Inpatient Pediatric Unit at NYU Langone's Hospital for Joint Diseases. In addition, support from our patrons has made possible the planning and design of the Helen L. and Martin S. Kimmel Pavilion, scheduled to break ground in 2013.

Philanthropy has also allowed for the purchase and renovation of two residence halls, including the Jan and Marica Vilcek Hall on East 26th Street (named for Jan Vilcek, MD, PhD, professor of microbiology, and his wife, Marica, who have donated more than \$125 million to NYU Langone), and scholarships for students at NYU School of Medicine. In addition, donations are responsible for the creation of a new neuroscience institute (a gift from Fiona and Stanley Druckenmiller), new science building, and the recruitment of more than 50 distinguished faculty members, as well as the establishment of 33 new endowed professorships.

"From the beginning, Board Chair Ken Langone's second leadership gift and Dean and CEO

Bob Grossman's ambitious vision, agenda, and clear plan for our leading academic medical center have resonated with our community's inherent generosity and extraordinary loyalty, inspiring our donors to invest with us as true partners," says Lisa Silverman, vice president for development and alumni affairs.

"The unique partnership we have with our donors is an essential ingredient in delivering on our vision to be a world-class patient-centered integrated academic medical center," adds Dr. Grossman. "Together with them, there isn't anything we can't accomplish."

To make a gift to NYU Langone, please visit <http://giving.nyumc.org>.

9/11/11

A Decade Later, the Office of Chief Medical Examiner Upholds Its Promise to Identify Every Remnant of the Lives Lost in the World Trade Center Attacks

Ten years after terrorists crashed two jets into the World Trade Center (WTC) on September 11, 2001, claiming the lives of 2,752 people, that tragedy remains viscerally present for a group of forensic investigators at the Office of Chief Medical Examiner of the City of New York (OCME). Day in and day out, they evaluate thousands of bone fragments in an ongoing attempt to match a name to each piece of human remains recovered from Ground Zero.

"We have five scientists working full-time, analyzing DNA from the bone tissue of victims," explains Mark Desire, the OCME's assistant director and WTC identification manager, Forensic Biology Laboratory. This process has gotten considerably faster since 2007, when the DNA lab moved to a spacious new building on East 26th Street. There, 180 scientists occupy several floors, toiling to extract DNA from crime-scene evidence. Of all the organic matter they deal with, bone requires the most time and effort to grind down, break open individual cells, and tease out enough viable DNA to analyze the 15 locations needed for a definitive identification.

"Ten years ago, we could analyze a few 9/11 bone fragments per day," says Desire. "Today, thanks to improved technology, we're analyzing several hundred a month." Many of the fragments now being evaluated were recovered soon after the event but didn't yield any usable DNA samples at the time

"When we've exhausted the limits of our identification technology we pause, but we never stop," explains Charles Hirsch, MD, chief medical examiner for New York City since 1989. "Then, as technology improves, we resume our efforts."

because they were too small or too degraded from fire or exposure to the elements. In recent years, however, the ability to extract DNA from such compromised fragments has increased dramatically, thanks to better extraction techniques, enzyme mixtures used to break open the cells, and DNA-amplification methods. Scientists have utilized these advances to go back and retest inconclusive fragments every few years, often succeeding where they had previously failed.

"When we've exhausted the limits of our identification technology, we pause, but we never stop," explains Charles Hirsch, MD, chief medical examiner for New York City since 1989. "Then, as technology improves, we resume our efforts." Like his professional staff, Dr. Hirsch holds joint appointments at



Dr. Charles Hirsch, chief medical examiner of the City of New York and chair of the Department of Forensic Medicine, in front of the new Forensic Biology Laboratory, four blocks south of his office, where DNA analysis is now performed.

the OCME and NYU School of Medicine, where he is professor and chair of the Department of Forensic Medicine and professor of pathology.

Most of the newly identified fragments match previously identified victims. Indeed, as many as 200 fragments from a single person have been recovered. Over the past five years, however, the lab has generated 32 new IDs, bringing the total number of identified victims to 1,626. Whether a fragment represents a match or a newly identified victim, what happens with the information depends on the family's instructions. "Each family has indicated whether they wish to be notified every time additional tissue is found," notes Dr. Hirsch. "They can also designate a third party to be notified, or ask not to be notified at all."

To date, over 21,000 human remains have been recovered from the WTC site. Whenever a new excavation uncovers remains that are potentially human, the materials in question are transported to a state-of-the-art forensic facility for examination. There have been two large-scale recovery operations in recent years—one in 2006 that gathered over 750 bone fragments from the roof of the Deutsche Bank Building, and an even more extensive operation launched that same year after a Con Edison crew found human skeletal remains inside a buried manhole.

"Following that discovery, we scoured every subterranean structure at the World Trade Center site," recalls Frank DePaolo, the OCME's assistant commissioner for emergency management, who over-

sees WTC recovery operations. "It was a huge undertaking." Eventually, 16,000 cubic yards of material were removed to two facilities in Brooklyn. Forensic anthropologists hand-sifted the material and retrieved some 1,100 additional bone fragments.

Identified remains are either returned to the victim's family or, if they desire, will be interred at a planned memorial at Ground Zero. Unidentified fragments are catalogued and stored away from sunlight, heat, and moisture, all of which can degrade or contaminate DNA, to await further testing.

"Realistically, some of these fragments may be so degraded that they no longer contain any usable DNA," says Desire. "On the other hand, we can now obtain profiles from bone samples that would have been unthinkable back in 2001. We still have several thousand fragments to analyze using our latest techniques, so hopefully we'll be making some additional identifications."

"This process is not time limited," adds Dr. Hirsch. "Ten years ago, we promised the victims' families that we would never quit working to identify every last individual who died that day—and we're going to keep that promise. It's a sacred obligation."

Web Extra: for an article about a protégé of Dr. Hirsch, Nicole Wimberger, who at 35 is one of the oldest students in the class of '13 at NYU School of Medicine, see "The Intern Who Became a Medical Student" at <http://newsandviews.med.nyu.edu/>.

NYU Langone Expands Programs to Improve Patient Outcomes *(continued from page 1)*

also known as "process of care" measures—that report how often hospitals delivered recommended care processes in the areas of heart attack, heart failure, pneumonia, and surgical care improvement, and are reported for all patients, not just those covered by Medicare. By comparison, New York-Presbyterian scored 93.7%; Mount Sinai, 94.2%; Johns Hopkins, 95.8%; and the University of Pennsylvania, 93.8%.

Behind the impressive numbers is the Medical Center's Quality and Safety Performance Improvement Program. Under its umbrella, initiatives ranging from enhanced infection prevention and improved medical documentation to hourly nurse checks on patients have had a dramatic impact on patient outcomes, particularly in reducing patient mortalities. "We know, for example, that if a heart attack or heart failure patient gets discharge planning that's thorough and focused on their specific medical needs," explains Dr.

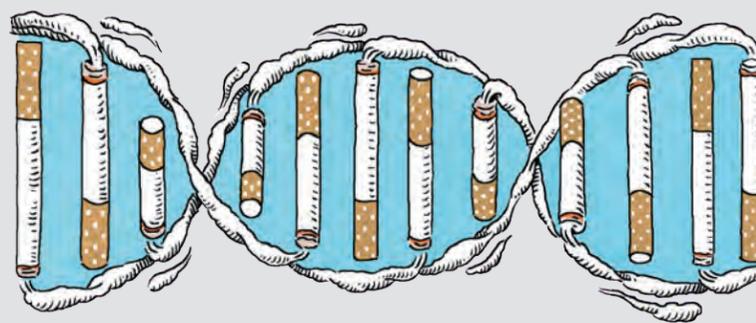
Radford, "they're going to live longer and stay out of the hospital longer."

One recently implemented initiative, for example, is the medical emergency response team, which includes an intensivist, nurse, and respiratory therapist. The team is rapidly deployed to the bedside of a patient whose condition is deteriorating. Since being implemented, says Dr. Radford, the program has pushed mortality rates downward, with the number of cardiopulmonary arrests outside the Critical Care Unit significantly lower.

In recent years, the Medical Center has garnered several distinctions for the quality and safety of its patient care. Last year, NYU Langone was named a top-10 academic medical center by the University HealthSystem Consortium (UHC), an organization comprising more than 100 leading medical centers in the US. It has also been awarded the Gold Seal of Approval by The Joint Commission, made the Niagara

Health Quality Coalition Hospital Report Card Honor Roll two years running, been ranked among America's Top 10 Best Hospitals by Becker's, won an award from the New York Business Group on Health for superior performance on the standards used in the Leapfrog evaluations of hospital patient safety, and earned redesignation as a Magnet Hospital for nursing excellence in 2009. That same year, NYU Langone's Rusk Institute of Rehabilitation Medicine was reaccredited for a three-year period by the Commission of Accreditation of Rehabilitation Facilities (CARF).

"We owe our success to everyone at our hospitals, from nurses to the Building Services Department, from physicians to care managers," says Bernard Birnbaum, MD, senior vice president, vice dean, and chief of hospital operations. "Our focused and collaborative efforts are paying off, helping us deliver truly world-class patient-centered care."

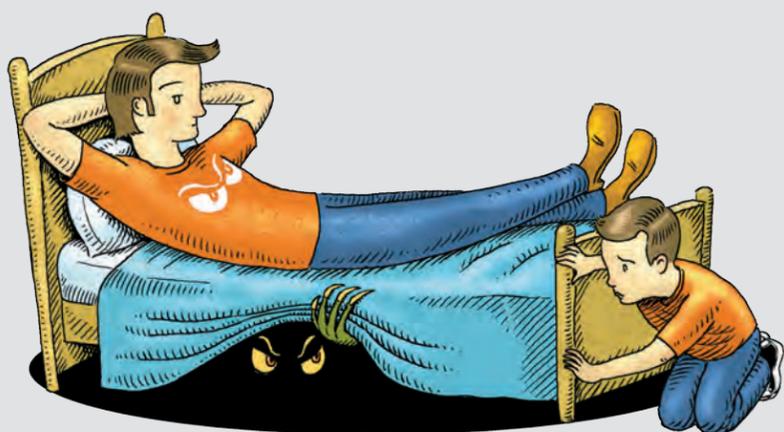


For Adolescents, Forgetting Fears May Pave the Way to Adulthood

“What’s too painful to remember, we simply choose to forget.” This poignant lyric from “The Way We Were” not only offers insight into the human psyche, but according to researchers at NYU Langone Medical Center, may also explain why youngsters tend to suppress the fears of childhood as they transition from adolescence to adulthood. “If the brain of an adolescent fails to forget a frightening situation,” explains Ipe Ninan, PhD, assistant professor of psychiatry, “abnormal circuitry may form and perhaps cause certain psychological disorders during teen years or later in life.”

Using mouse models to gain insight into the workings of the human brain, Dr. Ninan is seeking to understand how early life events may lead to mental illness in humans, particularly anxiety, depression, and obsessive-compulsive disorder. “We can follow mice over their lifetime,” he explains, “and systematically study the relationship between the animals’ altered behaviors and the corresponding molecular pathways that change in the brain.”

Dr. Ninan and his team used electric shocks to condition healthy male mice to fear a particular environment. When a conditioned mouse returns to the environment, it momentarily freezes—a measure of its learned fear response. An untreated mouse, however, readily explores the area. The researchers found that adolescent mice between 29 and 33 days old had a temporary suppression of the acquired fear memory and did not freeze when they were returned to the threatening environment, but younger and older mice did freeze. Developmentally, mice between 29 and 49 days old are comparable to teenagers. The brains of the adolescent mice during the suppressed period differed biochemically in the amygdala, the brain’s emotional center, and in the hippocampus, a region associated with memory of facts and events, suggesting that these regions play a role in the process.



Forgetting fearful memories is beneficial, Dr. Ninan suggests, because it enables adolescent mice to leave the nest and explore their environment, much like teenagers who yearn to leave home so that they can forge their own identities. Dr. Ninan is now studying other regions of the brain that may be involved and the molecules that may be responsible for a loss of memory. Understanding the role these molecules play in getting adult animals to forget fears and anxiety, he explains, may in time help researchers to develop new treatments for debilitating anxiety disorders. Dr. Ninan was a senior author of the study, published in *Proceedings of the National Academy of Sciences*.

Nipping Lung Cancer in the Bud

Despite all the advances made in diagnosing and treating cancer over the last half-century, the overall survival rate for lung cancer—the world’s leading cancer killer—remains 15%, virtually unchanged since 1960. That’s because about 84% of all cases of lung cancer aren’t diagnosed until they’ve reached an advanced stage. But when lung cancer is detected early, survival rates are dramatically better: about 86% of early-stage lung cancer patients survive at least five years. The question is: How can it be detected earlier?

In 2010, a landmark clinical trial found that low-dose CT scanning—an approach originally developed by David Naidich, MD, professor of radiology—can detect lung cancer at such an early stage that patients who receive such scans are at least 20% less likely to die than people who get chest X-rays. But, of course, it’s not feasible to perform annual CT scans on everyone who smokes. So how do you decide who should be scanned? Investigators at NYU Langone Medical Center’s Lung Cancer Biomarker Center, now in its 11th year of funding from the National Cancer Institute (NCI), are trying to find the answer. Over the past decade, they have screened more than 1,300 heavy smokers (as well as age-matched “control” individuals who never smoked, since lung cancer can also develop in nonsmokers) as part of the NCI’s Early Detection Research Network.

“At least half of the smokers we screen have noncalcified nodules in their lungs, but these nodules don’t necessarily tell us what we need to know,” says William Rom, MD, the Sol and Judith Bergstein Professor of Medicine, professor of environmental medicine, and director of the Division of Pulmonary, Critical Care, and Sleep Medicine. “Sometimes they’re a precursor to cancer, and sometimes they’re nothing. In careful screening of these patients over a decade, we’ve found approximately 27 lung cancers.”

Using blood samples from patients whose nodules turned out to be cancerous and those whose nodules were benign, as well as smokers who did not develop nodules at all, Dr. Rom and his team are working to develop tests for biomarkers that could identify cases of lung cancer at their earliest stages—when survival rates are highest. “Working with a biotech company, we’ve screened 850 proteins that might indicate lung cancer against 1,200 samples from our patients,” explains Dr. Rom. “Out of that group of 850, we’ve identified 40 that seemed to be suggestive of lung cancer, and then reduced those down to 12 that were very strong predictors of the disease.” Studies are under way in collaboration with Harvey Pass, MD, professor of cardiothoracic surgery and surgery, to validate whether this set of biomarkers can accurately pinpoint patients in the very early stages of lung cancer.

In another study, conducted with scientists at the University of Pennsylvania, Dr. Rom and his team found a panel of 29 genes that, together, act as a strong predictor for lung cancer. They’ve enrolled more than 700 smokers in a prospective study of gene expression, using that gene panel to try to predict which lung nodules will become cancerous. “Ideally,” says Dr. Rom, “these biomarker tests will help us accurately determine which patients should continue to receive regular CT scans, which ones can comfortably get less aggressive monitoring, and which ones should undergo surgery right away.”

At Rusk, Young Stroke Survivors Learn That Just About Anything Is Possible

It’s the evening rush hour, and the Manhattan sidewalks are jammed with people striding briskly from work. But for members of the Young Stroke Survivors Support Group, meeting inside NYU Langone Medical Center’s Rusk Institute of Rehabilitation Medicine, the world moves at a very different pace.

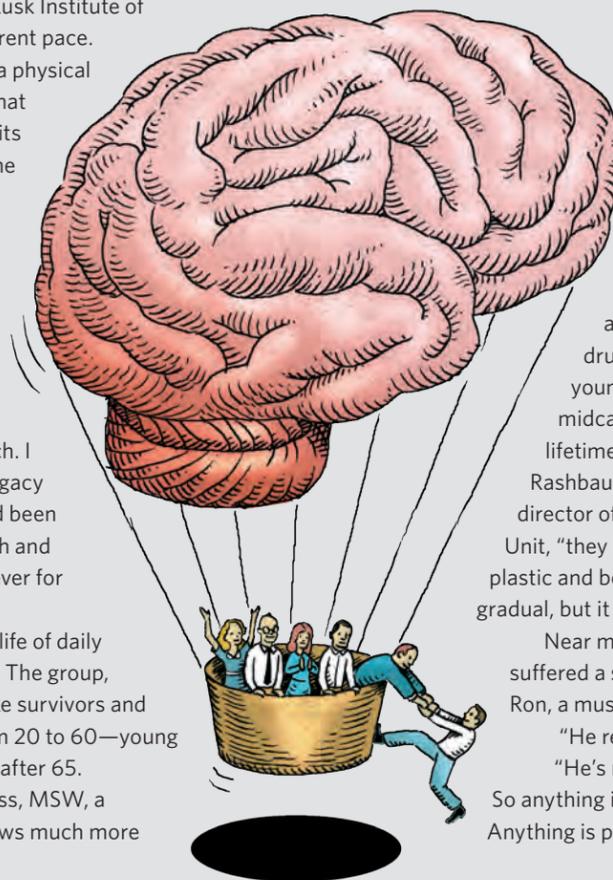
“How have you been?” asks Dina Pagnotta, MPT, a physical therapist. She suffered a mild stroke herself at 30, one that thankfully caused no lasting physical damage, although its emotional impact still resonates. Pagnotta, director of the Musculoskeletal Rehabilitation Network at the Medical Center, founded this support group four years ago. Her co-leader is Pamela Singer, MSW, the primary social worker for Rusk’s Inpatient Stroke Unit and Traumatic Brain Injury Unit.

“I . . . have my . . . ups and downs,” says Ava (not her real name). “I . . . try to be . . . positive, but my stroke took away everything.” She starts to cry softly. “My job, my ability to have a child, my right arm . . . and my speech. I used to talk beautifully.” Ava’s delivery is halting—the legacy of the stroke she suffered a year earlier. Previously, she’d been an editor. Now, in her 30s, her life centers around speech and physical therapy. “People engage me,” she adds, “but never for long. They don’t have the patience.”

In this room, patience abounds. No strangers to a life of daily struggle, they listen carefully as Ava shares her feelings. The group, which meets for an hour each month, is open to all stroke survivors and their family and friends. Participants typically range from 20 to 60—young by medical standards, since some 75% of strokes occur after 65.

“You’ve made real improvement,” says Renee Gross, MSW, a social worker who helps run the group. “Your speech flows much more

easily,” agrees Ron, whose own stroke occurred a year and a half ago. Turning to him, Gross asks, “How are you doing?”



“I was thinking about the dynamic where I used to work,” says Ron. “How it’s survival of the fittest.” “Have you been back to the office?” asks Gross. “Once, to a holiday party,” he says. “It was fine, but it wasn’t the same because, you know, ‘There’s Ron, he’s special now.’” Ron was in a wheelchair then, but today he walks with a cane.

The hour passes swiftly as the group touches on the benefits of hyperbaric oxygen, a website offering adaptive devices, and people who mistakenly attribute the slowed speech of stroke survivors to drunkenness. While strokes are devastating at any age, younger survivors bear a unique burden. Frequently in midcareer, they’ve lost more than most and must spend a lifetime dealing with their deficits. At the same time, notes Ira Rashbaum, MD, clinical professor of rehabilitation medicine and director of Rusk’s William Randolph Hearst Stroke Rehabilitation Unit, “they have reason to be optimistic. Younger brains are more plastic and better able to heal. The recovery process is likely to be gradual, but it can continue for many years.”

Near meeting’s end, Pagnotta mentions a guitarist who suffered a stroke onstage. Five years later, he’s playing again. Ron, a musician himself, saw him perform.

“He recovered?” asks Ava.

“He’s recovering,” says Pagnotta. “It’s an ongoing process. So anything is possible. As difficult as that is to imagine, it’s true. Anything is possible.”

Super Seniors

Of All the Lessons a 95-Year-Old Patient Can Teach Geriatric Specialists, the Greatest May Be That You're Never Too Old to Bounce Back

Maria Reyes stepped out of her home one August morning in 2009, just as she had for decades. She said hello to her Bronx Park South neighbors, who affectionately call her *Abuela* (Spanish for "Grandmother"). The 95-year-old mother of 2, grandmother of 6, and great-grandmother of 12 was on her way to run some errands when she tripped over sewer workers' power lines. Neighbors quickly called her daughter, who lives nearby, and Reyes was rushed by ambulance to a local emergency department. She had fractured her hip, an injury that, for women in her age group, has more than a 25% mortality rate after one year, often due to blood clots, pneumonia, or infection.

Just before surgery, Reyes's family decided to transfer her to NYU Langone Medical Center, where her granddaughter, Jacqueline Ramos, RN, works in the Outpatient Surgery Center. After her hip was repaired, she was moved from Tisch Hospital's Critical Care Unit to its medical service, where she was assessed by a team that included an attending geriatrician, a geriatric nurse practitioner, a geriatric fellow, and a pharmacist. Since Reyes's native language is Spanish, Marilyn Lopez, RN, administrative nursing coordinator and geriatric nurse practitioner, made sure that an interpreter was always available so that Reyes never felt isolated.

On average, nearly 50% of Tisch Hospital's inpatients are 65 or older, explains Lopez, a number that will only grow as baby boomers become seniors. Caring for an aging population, she adds, brings unique challenges. "We need to take a holistic approach. With seniors, you can't forecast anything. Some of our 90-year-olds fare better than some of our patients in their 70s or 80s. If you're fortunate enough to reach a very advanced age, there's a great deal of resiliency." The goal is to return patients to the life they led before, notes Michael Perskin, MD, assistant professor of medicine and Tisch Hospital's chief of geriatrics.

Before her stay at Tisch, Reyes had never been hospitalized. But like other seniors, she was at increased risk for skin problems, acute confusion, and complications due to multiple medications. She sailed through surgery, but postoperatively, she took a turn for the worse. As her problems—fever, breathing difficulties, low blood oxygen levels—mounted in complexity, Reyes was transferred to the Critical Care Unit, where Lopez and her colleagues closely monitored her symptoms. The



Joshua Bright

Maria Reyes (center), flanked by her daughter, Digna Figueroa-Reyes (left), and granddaughter, Jacqueline Ramos, RN (right).

constant communication between the geriatric team and my family, says Ramos, "made us at least *feel* like we were in control."

While intubated and placed on multiple IVs, Reyes felt she was fighting off death in her sleep. "But God came and said, 'You're not going anywhere,'" she recalls. The chatty matriarch displayed a feistiness that Lopez says is characteristic of "super seniors"—her term for highly resilient older patients who fight for their own recovery.

Once stabilized, Reyes was moved to a room, where tubes and medical equipment were minimized, and caregivers made sure she was aware of her environmental changes. She still had breathing and swallowing issues and was not fully functional, but she soon regained her independence. "Given the odds," marvels Lopez, "she made a remarkable recovery."

For Reyes, the next step was just that—standing up and eventually walking. "I thought I would never walk again," she recalls. But she was determined, says Lopez, and worked diligently with physical therapists to regain mobility, first at Tisch, then at NYU Langone's Rusk Institute of Rehabilitation Medicine. Had it not been for the spectacular multidisciplinary care she received, says Ramos, "Grandma would not be with us."

Today, Maria Reyes, now 97, is back with her family and friends, in the neighborhood she has called home for more than half her life. She gets around on her own two feet, with the help of a walker, laughing and joking like the young-at-heart nonagenarian she is. Ever since the night God told her that she wasn't going anywhere, she's only gone forward. "I want to get to 100," she confides. "Easily."

Epic Goes Live at Tisch, Rusk, and HJD

NYU Langone Moves One Step Closer to Adopting the First Fully Integrated Clinical Health Information System in the New York Area

An event billed as "Epic Go-Live" would seem to promise all the drama and glitter of a theatrical extravaganza. But the first phase of NYU Langone Medical Center's new integrated health information system—implemented at Tisch Hospital, the Rusk Institute of Rehabilitation Medicine, and the Hospital for Joint Diseases on Sunday, June 5—actually seemed more like a massive military maneuver and was more notable for its painstaking behind-the-scenes planning than its onstage performance. "For this phase of the launch," explains Bernard Birnbaum, MD, senior vice president, vice dean, and chief of hospital operations, "we put in a half-million hours of work, trained 2,400 employees, tested 21,000 individual transactions, and backloaded more than 50,000 patient appointments. We simultane-

ously rolled out 10 new integrated applications and 57 new interfaces to existing ancillary services."

Epic enables electronic health records on an enterprise-wide basis, leading to greater efficiencies, real integration, and most important, a higher quality of patient care. It was introduced for outpatients at NYU Langone's Trinity Center in lower Manhattan in 2009 and later implemented in many of the Medical Center's faculty group practices, including Endocrine Surgery, Epilepsy, General Surgery, Internal Medicine Associates, Orthopaedics, Pulmonary and Critical Care Associates, Urology, and Vascular Surgery. The recent rollout incorporated registration, scheduling, and billing functions at the institution's three largest inpatient facilities, along with its OR management system and intraoperative documentation.

To ease the transition to Epic, hundreds of support personnel, dressed in hard-to-miss violet vests or polo shirts, fanned out across the three hospitals to offer technical and workflow assistance to staffers. Meanwhile, back at the Epic command center at 360 Park Avenue, a team of technicians and Epic application experts served as troubleshooters. The process had actually begun on Saturday, June 4, as members of our Information Technology team gradually shut down older programs, making sure that no data were left behind. By midnight, the Medical Center's computer system was largely put into a deep sleep. Over the next few hours, components of the new system were readied for service. Epic went live at 5:30 a.m., moments after sunrise.

"Considering the enormous scope of the project, it went quite smoothly," reports Nader Mherabi, senior vice president, vice dean, and chief information officer. "We had some bumps at first, but that was to be expected. We're changing the workflow of thousands of employees and instituting several new technologies."

Most Epic operations will occur out of sight, but patients will notice several changes at NYU Langone in the days ahead. Once they've registered in the system—a simple, five-minute process—patients will be able to check in for an appointment by placing their hand over a small boxlike device that uses an infrared beam to scan the unique network of veins in their palm (a pattern even more distinctive than fingerprints). The system, PatientSecure (see *March/April* issue at <http://newsandviews.med.nyu.edu>), will reduce duplicate medical records and help prevent medical identity theft and insurance fraud. (To date, more than 10,000 patients have enrolled in PatientSecure.) In addition, outpatients will have access to certain medical information via a secure online portal, myNYULMC.org. "This will enable patients to communicate with their physician, book appointments, refill prescriptions, and view lab results," explains Mherabi.

The next key phase of the program—the implementation of the remainder of Epic clinical applications, including clinical documentation, pharmacy, radiology, and emergency department applications—will enable clinicians and physicians to have a fully integrated medical record, significantly enhancing quality of care and reducing the risk of data errors. This phase is targeted for completion next year. When fully implemented, this enterprise-wide system will be the first fully integrated clinical health information system in the New York area, and one of only a few in the nation, that links hospitals, physicians, and patients on a single platform.

"This was a big step toward our goal of creating an electronic health record across the entire Medical Center," says Dr. Birnbaum, "which we expect will not only streamline data management but improve patient care."



Joshua Bright

Registering for an MRI, Arthur McCarthy has his palm scanned by one of the 250 devices installed throughout the Medical Center so far as part of PatientSecure.

Inside This Issue



Gratitude of the Greatest Magnitude During the four years Dean Grossman has been at the helm, NYU Langone Medical Center has garnered an unprecedented \$1 billion in philanthropy. The sum represents more than 66,000 separate gifts, ranging from less than \$1 to four gifts of \$100 million or more, from some 51,000 donors. [page 1](#)



A Kinder, Gentler Way to Repair a Heart Valve NYU Langone has long been a national center of excellence for valve surgery. That reputation was enhanced in the 1990s, when Dr. Aubrey Galloway and his colleagues perfected a method for accessing the heart valves through a small incision—all the surgeon needs to repair or replace a valve. [page 3](#)



"I'm Not Ready to Die" When the melanoma that Brenda Uhl had been battling for 14 years spread to her lungs, liver, and brain, many doctors gave up hope. So she came to NYU Langone's Clinical Cancer Center, where she enrolled in a clinical trial for a new drug. "Dr. Pavlick and her team," she says, "gave me my life back." [page 3](#)



9/11/11 In the aftermath of 9/11, Dr. Charles Hirsch, chief medical examiner of the City of New York and chair of the Department of Forensic Medicine, promised the victims' families that his office would never quit working to identify every last individual who died that day. He has kept that promise. [page 5](#)



Super Seniors On average, nearly 50% of Tisch Hospital's inpatients are 65 or older, a number that will only grow as baby boomers become elders. One of these patients, 95-year-old Maria Reyes, who had never before been hospitalized, made an amazing comeback, thanks to the care she received there. [page 7](#)

NEWS & VIEWS

news & views is published bimonthly for NYU Langone Medical Center by the Office of Communications and Public Affairs. Readers are invited to submit letters to the editor, comments, and story ideas to thomas.ranieri@nyumc.org.

NEW YORK UNIVERSITY

Martin Lipton, Esq., *Chairman, Board of Trustees*
John Sexton, *President*
Robert Berne, PhD, *Executive Vice President for Health*

NYU LANGONE MEDICAL CENTER

Kenneth G. Langone, *Chairman, Board of Trustees*
Robert I. Grossman, MD, *Dean and CEO*
Deborah Loeb Bohren, *Vice President, Communications and Public Affairs*
Frank W. Lopez, *Director of Publications*

news & views

Thomas A. Ranieri, *Editor*
Marjorie Shaffer, *Science Editor*
i2i Group, *Design*

To make a gift to NYU Langone, please visit <http://giving.nyumc.org>.

Copyright © 2011 New York University.
All rights reserved.

For the Smallest of Patients, a Heartwarming Homecoming

At its 13th annual We Believe in Miracles reunion, held on Sunday, June 26, NYU Langone Medical Center's Division of Neonatology welcomed back hundreds of its "alumni" of the Neonatal Intensive Care Units (NICUs) at Tisch Hospital and Bellevue Hospital. Many of these former premies, ranging in age from 6 months to 17 years, gathered for a group portrait in Farkas Auditorium. Founded in 1992, these regional perinatal centers care for more than 30,000 infants—more than 25% of the children born in New York City—every year. The event was supported by KIDS of NYU and Community of Care. For more photos of the event, see "A Heartwarming Homecoming" at <http://newsandviews.med.nyu.edu/>.

