A Breath of Fresh Air

For Patients with Chronic Wounds Who Undergo Treatment with Hyperbaric Oxygen Therapy, “Taking a Dive” Is Actually Good News

Radiation therapy helped Frances Flores, 80, beat cervical cancer, but not without inflicting collateral damage. The high-energy X-rays directed at her cervix over the course of two months destroyed healthy blood vessels in the surrounding area, leaving her with vaginal bleeding so severe she barely had the energy to leave the house. “I was exhausted all the time,” recalls Flores.

When the injured tissue refused to heal, her gynecologist referred her to the Helen L. and Martin S. Kimmel Hyperbaric and Advanced Wound Healing Center at NYU Langone Medical Center. Located in the Ambulatory Care Center on East 38th Street, the center is one of just two outpatient facilities in Manhattan to offer a promising treatment known as hyperbaric oxygen therapy (HBOT) for chronic wounds like the one plaguing Flores.

Like many people, Flores had never heard of HBOT, and she was initially nervous about the regimen. The therapy calls for lengthy sessions, five days a week, inside a sealed, transparent chamber that resembles a kind of futuristic hibernation pod. “I was definitely scared at first,” Flores admits. “But the technicians made me feel so safe and comfortable. My anxiety just disappeared.”

At sea level, the air we breathe typically contains about 21% oxygen. The pressure chamber, however, enables 100% pure oxygen to be dissolved into the patient’s blood plasma, where it can circulate to oxygen-starved wounds and stimulate the growth factors and stem cells that help rebuild blood vessels. The Food and Drug Administration has cleared HBOT for 14 conditions, including soft-tissue necrosis (Flores’s condition), carbon monoxide poisoning, diabetic foot ulcers, poor

The Deaf Boy Who Made His Parents Speechless

A Pioneering Surgery Performed at NYU Langone Restores Hearing and Hope

At 28 months of age, Yoel Koenig began saying his first words, like “baba” for bottle and “beep beep” for car. Although children of that age normally have richer vocabularies, Yoel’s parents were overjoyed. A year earlier, they had every reason to believe that their son would never speak or hear.

Like all newborns, Yoel was given a hearing test, which suggested that he had significant hearing loss. A more sophisticated test showed that he was profoundly deaf. Samuel and Aliza Koenig were devastated, but they held out hope that Yoel could
Child Study Center Launches Weekly Educational Workshops for Parents

On September 26th, the Child Study Center (CSC) at NYU Langone Medical Center kicked off its Educational Workshop Series. Weekly seminars on various topics related to raising healthy kids, managing behavior, and emotional health and illness will be led by experts or faculty. The first in the series, “Advancing Kids’ Organizational Skills—Keys to Success,” addressed children with attention deficit hyperactivity disorder (ADHD), who often struggle with organizing schoolwork, managing time, and planning projects. The disorder is believed to afflict between 5 and 7% of children, with boys outnumbering girls three to one.

Speaking to a group of some 60 parents, Richard Gallagher, PhD, associate professor of child and adolescent psychiatry and psychology, and director of the Parenting Institute, reviewed techniques and best practices from the CSC’s highly successful Organizational Skills Training Program. With Howard Abikoff, PhD, the Pearsall Cohen Professor of Child and Adolescent Psychiatry, professor of psychiatry, and director of NYU Langone’s Institute for Attention Deficit Hyperactivity and Behavior Disorders, Dr. Gallagher is coauthor of a major study, spanning 12 years of research, on improving the organizational skills of school-age children with ADHD. Dr. Gallagher has found that children with ADHD do well with a one-page planner—one per day, with clearly and simply marked class times, project due dates, and a checklist of supplies required for each assignment.

For storage of papers, which kids can easily mix up or lose, Dr. Gallagher suggests buying an accordion file instead of a three-ring binder, which requires too much time and energy to maintain. For time management, kids were asked to learn to track time so that they could plan their schedules with parents. “We gave them stopwatches, and they became time detectives, eager to determine how long it took to, say, do their math homework,” says Dr. Gallagher. “Environment is crucial. Kids retain information better if they learn in multiple places.” he adds. “Music, which seems like it would be a distraction, actually helps some children—as long as it’s of the child’s choosing.”

The results? Over time, most youngsters exhibited far better organization and planning skills at home, an improved ability to plan and manage time, and higher productivity and academic standing. The research team also found that students who employed these strategies clashed less frequently with their parents, Dr. Gallagher’s wife6, who is also the married the parents, who usually took notes. “Best ideas for ADHD coping I’ve ever heard,” said the father of a fifth grader. “I’m buying an accordion file on the way home tonight.”

Upcoming seminars, held on Thursdays at 6:30 p.m. through next May on the seventh floor of One Park Avenue (between 32nd and 33rd Streets), will focus on a multitude of topics, ranging from moodiness to healthy eating. Workshops are free, but preregistration is required. For more information or a schedule of topics, call 212-263-6622.

For Families of Surgical Patients, a Guiding Light

No sooner do patients and their families enter the surgical admitting unit on the fourth floor of NYU Langone Medical Center’s Tisch Hospital than they are greeted by two surgical liaisons, members of a newly created team of nurses who use their expert clinical knowledge and interpersonal skills to provide a reliable and comforting presence throughout the day for jittery families as their loved ones shuffle between preop, the OR, and the postanesthesia care unit (PACU).

“Their specialty is keeping people informed in a timely and comprehensible way,” says Elizabeth Uihlein, manager of guest services at NYU Langone. “Surgical liaisons have been a huge success for us in fostering a spirit of patients’ and family-centered care.” That becomes clear as one watches surgical liaisons Dana Goldberg, NP, and Amelia McCaffrey, RN, work the crowded waiting area and PACU during a recent 12-hour shift. “The twin mayors of New York City,” as they playfully refer to themselves, move with ease and purpose among families who wear their anxieties on their sleeves.

“I have your cell number. I’ll give you a call if anything changes,” Goldberg says to a woman whose 17-year-old son is in the OR two floors above. Later, she confers for another woman that her husband has been moved to the PACU after surgery for a complex acoustic neuroma. Accompanying her to the PACU, Goldberg preps her on what she can expect to see. “The surgical liaison updated me at least three times,” says the woman. “Without her, I would have been completely on my own.”

The Surgical Liaison Program was created late last year by the Department of Patient-Centered Care to reinforce this message: It’s all about the patient and their family. The team’s four nurses, one of whom is Carol Melinano, RN, and Karen Hickey, RN, provide coverage from 7:00 a.m. to 9:00 p.m.

“We send up doing a little bit of everything,” acknowledges McCaffrey. “But we see ourselves primarily as educators. Family members may be shocked to see a loved one with a breathing tube, for example. We use our clinical experience to explain and reassure.”

Surgical liaisons answer questions and manage the daily flow of up to 50 patients and their families. Armed with clipboards, cell phones, and a open line to the PACU, they know instantly when a patient is settled in—process that can take 30 to 45 minutes, depending on the surgery—and ready for a loved one to visit at their bedside.

“They acted as if it was their pleasure to serve us,” says a beaming Joan Keiser, who accompanied her husband for heart surgery. “Just knowing they were there for us meant so much.”

NYU Langone Ranked Number One for Patient Safety and Quality by University HealthSystem Consortium, Earning Five-Star Overall Performance Rating

NYU Langone Medical Center scored number one for overall patient safety and quality among leading academic medical centers nationwide that participated in the University HealthSystem Consortium (UHC) 2013 Quality and Accountability Study.

In addition, NYU Langone received the UHC Quality Leadership Award for demonstrated excellence in the delivery of high-quality care, achieved five stars for its overall performance, and ranked number one in the domains of safety, effectiveness, and equity. The UHC scorecard is a unique analysis of academic medical centers that takes into account all six quality domains of efficiency, effectiveness, equity, patient centeredness, safety, and timeliness, as defined by the Institute of Medicine in Crossing the Quality Chasm: A New Health System for the 21st Century. Unlike other ranking systems, it does not rely exclusively on hospital claims data, which are known to have limitations for quality and safety measurement. It also employs a robust risk adjustment system to ensure fairness for measurement of outcomes such as mortality, length of stay, and cost. Additionally, it does not rely on subjective reputation scores.

The UHC is an alliance of the nation’s leading nonprofit academic medical centers, which are focused on delivering world-class patient care. Conducted annually since 2005, UHC’s Quality and Accountability Study ranks academic medical centers for their performance across a range of key patient safety and quality indicators, including those noted above. "UHC applies a rigorous methodology that is trusted across the entire book of business for all academic medical centers, and those recognized are truly the ‘best of the best,'” said Bernard Birnbaum, MD, senior vice president and vice dean, and chief of hospital operations, who received the award on behalf of NYU Langone at the UHC’s annual conference in October. “We are honored to be the recipient of this important designation.”

Dana Goldberg, RN, is one of four surgical liaisons who assist families of patients in Tisch Hospital’s fourth-floor surgical admitting unit.
A Tree Grows in Brooklyn and Beyond

Two Distinguished Medical Practices Join NYU Langone’s Ever-Expanding Network of Ambulatory Care Sites

Susan Levit, MD, knows a thing or two about community service. A one-time captain in the Israeli Defense Forces, she helped train a generation of physicians at the Rambam University Teaching Hospital in Haifa. Bringing her skills and energy to the US, she opened the Susan Levit Medical Center in 1992, grooming it to become a multispan practice with sites in Midwood, Bensonhurst, and Canarsie, three of Brooklyn’s polyglot neighborhoods.

On September 17, Dr. Levit’s medical banner began flying a new set of colors—violet and white—as she formally became NYU Langone Levit Medical. Dr. Levit, its medical director, was appointed a clinical assistant professor of medicine at NYU School of Medicine. “We’re truly excited about our relationship with a medical center that has the resources and reputation of NYU Langone,” says Dr. Levit. “It will bring opportunities to strengthen our existing care and develop more specialized services to meet the needs of our thousands of patients.”

Levit Medical touched off a matching wave of excellence for the NYU Langone network where it became the newest addition to a rapidly expanding network of ambulatory care centers, a strategic expansion of the Medical Center’s outreach into communities that lie beyond its main campus. “We’ve identified a number of patients in Brooklyn and Queens who need to be in the communities so that patients can get the majority of their care closer to home,” says Andrew Brotman, MD, senior vice president, vice dean for clinical affairs and strategy, and chief clinical officer. “If they require more specialized services, we can provide seamless access to such expertise and resources at our main campus.”

Two weeks before Levit Medical came on board, the NYU Langone Cardiovascular Associates, with several sites in Queens and Long Island, joined the Medical Center’s family. NYU Langone Cardiovascular Associates maintains a staff of 13 experienced cardiologists, offering a full roster of noninvasive cardiac services, including echocardiograms, stress echocardiograms, and nuclear stress testing. Complex procedures, such as cardiac catheterization and cardiac surgery, are performed at the Medical Center’s main campus.

“Joining NYU Langone gives us a new platform for building on our excellence in cardiovascular care,” says the site’s medical director, William Tenen, MD, clinical associate professor of medicine. “It’s a chance to partner with a premier healthcare institution that is widely recognized for the quality of its medicine, nursing care, and research.”

Beyond the five boroughs, NYU Langone’s network has expanded to Long Island, New Jersey, and Westchester, Putnam, and Dutchess Counties. In Manhattan, it includes NYU Langone at Trinity Center in the Financial District, the Miller Practice in the Theater District, and the Joan H. Tisch Center for Women’s Health on the Upper East Side.

“The future of healthcare is ambulatory care,” explains Paul Pogrebinsky, senior director of ambulatory operations. “To stay in the forefront, we’ve made a commitment to open more and more sites so that patients can get the specialized medical services they need without going to a hospital.”

We have an intense screening process that ensures we get the very best physicians—true clinical leaders—within the communities they serve,” explains Andrew Rubin, vice president for Medical Center clinical affairs and affiliates. “To qualify as a member of our network, a practice must meet stringent quality standards and share our commitment to patient-centered care.”

Once the partnership is forged, NYU Langone looks to enhance the practice. Columbus Medical, located in largely Russian-speaking Rego Park, Queens, is a good example. Since becoming an NYU Langone faculty group practice in 2008, it has doubled in size to 40 specialists in 20 fields and has added a 10-chair inpatient center, a satellite of The Cancer Institute at NYU Langone Medical Center, an NCI-designated facility. With regard to Levit Medical, Rubin explains that “we plan to build on their robust patient base and excellent reputation by expanding clinical services and upgrading facilities.” As is done at other ambulatory care sites, NYU Langone might bring distinguished specialists in fields such as urology, cardiology, and orthopaedics to treat patients locally. “We want Levit Medical to serve as the anchor for what will eventually become a huge ambulatory presence for us in Brooklyn,” adds Rubin. “It’s another step toward serving our patients by putting world-class clinical care right in their own backyards.”

The Deaf Boy Who Made His Parents Speechless (continued from page 1)

benefit from a cochlear implant, an electronic device that can provide reasonably good hearing to people with a damaged cochlea (the fluid-filled, snail-shaped structure in the inner ear that converts acoustical energy into electrical signals, which the brain interprets as sound). The problem, as MRI and CT scans later revealed, was Yoel’s cochleas weren’t damaged—they were absent. A cochlear implant wouldn’t help.

Looking for hope, the Koenigs were referred to J. Thomas Roland, Jr., MD, the Mendik Foundation Professor of Otalaryngology, chair of the Department of Otolaryngology, and professor of neurosurgery at NYU Langone Medical Center. He gave the couple one last glimmer of hope: an auditory brainstem implant (ABI). An ABI bypasses the entire auditory system (the outer, inner, and middle ear, the cochlea; and the auditory nerve), establishing a direct connection between the inner ear and the auditory nerves, not nerves that control facial movement. “The first time Dr. Roland came to see us, he made good sense to offer an ABI for Yoel as an off-label use of an approved device.”

Acting on the family’s behalf, Dr. Roland successfully petitioned their insurance company to cover the entire procedure (costing upward of $100,000). With the last barrier removed, the stage was set for the first pediatric ABI in the US.

Surgery was scheduled for August 28, 2012. Dr. Roland and his team began by drilling a dime-size hole into Yoel’s mastoid bone, which sits behind the ear, allowing access to the auditory nerve and brainstem. Next, the neurosurgeon snaked a match-head–size electrode paddle through the hole and into a natural opening called the fourth ventricle, until it reached the cochlear nucleus, a bundle of neurons that transmit auditory signals to the brain’s higher regions.

In one last step, audiologist William Shapiro, AuD, clinical associate professor of otalaryngology, tested the device, ensuring that the paddle was stimulating only the auditory nerve, not nerves that control facial movement, swallowing, and other functions. So far, so good, but the true test of the ABI was still months ahead.

In October, the Koenigs brought Yoel back so that Dr. Shapiro could activate and program the device. At first, Yoel’s device was sent a series of beeps, causing him to stop playing and look around. “Then the audiologist told everyone to be quiet because they were putting in real sound,” recalls Aliza. “When the audiologist made some vocal sounds, Yoel got very scared and started crying. That’s when we all started crying. When he heard me say hello for the first time, he gave me this look that said, ‘Wow, this is new.’ ”

Although ABIs usually provide only minimal hearing, Dr. Roland is optimistic that Yoel, with further programming and speech therapy, will develop normal language skills and eventually enter a mainstream school system. Only a year after his ABI was activated, Yoel’s vocabulary is slowly expanding, with each new word bringing tears to his parents’ eyes. “He can respond to simple questions and loves listening to music,” explains Aliza. “It’s an uphill climb, but he’s a happy little boy.”

In September, two new group practices—NYU Langone Levit Medical in Brooklyn and NYU Langone Cardiovascular Associates in Queens—joined the Medical Center’s rapidly expanding network of ambulatory care centers. Their multiple sites are shown above.
David Cohen, MD, the Charles C. and Dorothy E. Harris Professor of Dermatology and vice chair of clinical affairs for the Ronald O. Perelman Department of Dermatology, serves as director of Occupational and Environmental Dermatology and chief of the Allergy Section/Contact Dermatitis. An internationally known expert on allergic contact dermatitis, Dr. Cohen is working with the New York City Department of Health and Mental Hygiene to examine the prevalence of skin disease among 9/11 responders. He was also assigned to the federal commission that studied the effects of the Gulf oil spill.

Skin problems seem to affect everyone—from newborns to teenagers to the elderly. Why is that?
The skin is the package that protects all the other organs. As a result, it's the organ most exposed to environmental stress and insult: heat, cold, stress, chemicals, and ultraviolet radiation. Internally, the skin may also take abuse from the immune system. It's the battleground for such autoimmune disorders as psoriasis and eczema.

What's your best advice for how we can protect our skin?
Avoid the strongest rays of the sun, between 10:00 a.m. and 3:00 p.m. When you're out in the sun, cover yourself with clothing and use sunscreen. We also tend to shower with hot water frequently, which weakens the skin. Take brief showers with gentle soap. If your skin is prone to dryness or if you live in a dry region, use a fragrance-free moisturizer.

What do people really need to know?
My opinion is that a 30 sunscreen may not work as much better than a 15. But the problem is that those numbers are determined in the laboratory, and people don't apply sunscreen the same way it's tested. So my recommendation is to use higher numbers like 30 or 50 because I don't believe people are getting the same level of protection listed on the bottle.

Do you enjoy the sun?
I do. I'm not against the beach. In fact, my family and I love sunny locations. But I stay under the umbrella—I don't bake in the sun. I use sunblock and wear protective clothing.

What are the most common skin allergies?
In the US, poison ivy, oak, and sumac. Another common allergy is metal, particularly nickel. Many people will find that they're intolerant to costume jewelry or belt buckles.

Eczema has risen 40% in the last four decades. What's going on?
It's a problem that occurs in as many as one in five American children and also in adults. Like acne, it is a multifactorial disease related to environmental stressors like allergens, irritants, and genetics. It's intricately linked to other allergic genetic disorders, particularly asthma, which is also on the rise. There is a connection between asthma and the increased amount of particulates and irritants in the air, like smog and dust. There are a vast number of skincare products on the market. Which kinds are worthwhile, and which are a waste of money?

This is a very tricky question. Price is often used as a guide for cosmetic products, but there are fine products that are expensive and fine products that are inexpensive. So it's hard for me to say. Generally, I recommend using a good fragrance-free moisturizer that agrees with the skin.

Any exciting studies under way in your department?
Ours is the largest academic department of dermatology in the country. This was the birthplace of diagnostic testing for skin allergies. The cells responsible for the most key elements of skin allergy were discovered here. It's a very dynamic area of medicine. What people reacted to 50 years ago is not the same as today. There is an ever-evolving repertoire of chemicals that humans get exposed to. Our researchers continue to be at the forefront of studying and monitoring the causes of allergic disease.

What does your most recent work focus on?
My research has been looking at the association between skin allergy and foods. For decades, patients have been indicating that certain foods trigger eczema. Researchers at NYU Langone were the first to demonstrate that chemicals commonly found in fragrances occur naturally in foods like tomatoes. This tells us that certain patients might benefit from dietary changes.

Are wrinkles inevitable?
To some degree. With aging, there is increasing skin laxity and a redistribution of the skin's infrastructure, mainly the fat. Forty years of exposure to the sun and the elements has a rather wearing effect on the skin. The more you can do to prevent that exposure, the more you can do to prevent wrinkles.

What makes you marvel the most about our skin?
Its ability to do so many things so gracefully and so effortlessly. It keeps our body temperature constant. It keeps dangerous things from getting in. It's our first line of defense against infections. It metabolizes drugs. It often defines the beauty of a person. It protects us from the minute we're born to the day we leave this earth.
Like the human immunodeficiency virus (HIV) she has devoted her career to vanquishing, Susan Zolla-Pazner, PhD, professor of pathology, has earned a reputation for uncommon resiliency. She has been researching HIV since 1981, when a “strange pneumonitis” began sweeping through the gay communities of San Francisco and New York City. At the time, Dr. Zolla-Pazner was pregnant with her first child and running the clinical immunology laboratory at the Manhattan Veterans Affairs Medical Center (VA), an affiliate of NYU Langone Medical Center, where blood samples were sent for analysis.

“We had no idea what was causing the disease,” recalls Dr. Zolla-Pazner, who now serves as director of the AIDS Research Center at the VA. “But we weren’t afraid. We knew how to handle blood safely.”

In 1984, after researchers had traced the mysterious illnesses to HIV, Dr. Zolla-Pazner and other scientists resolved to develop a vaccine. Emboldened by the rapid pace of their research, some scientists believed the work could be done in as little as two years. “Things were moving very fast,” says Dr. Zolla-Pazner. “Every week we were learning something new. But obviously no one could begin to appreciate what a tough job we had in front of us.”

Three decades later, as World AIDS Day is celebrated on December 1, an estimated 34 million people now live with HIV. More than 30 experimental vaccines have failed, but one has shown partial success. Dr. Zolla-Pazner, however, remains hopeful that an effective vaccine can be developed. Today, she and Xiang-Pong Kong, PhD, associate professor of biochemistry and molecular pharmacology, head an international team of researchers that is finally gaining ground on the elusive HIV vaccine, bringing within reach the long-sought dream of eradicating a disease that claims 1.7 million lives annually worldwide. Moreover, constant regions are often hidden by tangles of sugar molecules. The variable regions, by contrast, stick up from the shell of HIV like loose nails in a floorboard, making it easier for antibodies to reach them.

A Breath of Fresh Air (continued from page 1)

More than 30 experimental vaccines have failed, but one has shown partial success. Dr. Zolla-Pazner remains hopeful, however, that an effective vaccine can be developed.

The amino acids in those sequences may change, but Dr. Zolla-Pazner believes common structures lie within them. “You can look at the faces of a penguin, monkey, and dolphin and see the obvious differences, but you can also see commonalities,” she explains. “They all have two eyes, a nose, a mouth, and so on.”

Thanks to an $8.4 million grant from the Bill & Melinda Gates Foundation in 2006, Dr. Zolla-Pazner and Dr. Kong discovered such fixed structures within the V3 region. Their team even built a vaccine to elicit antibodies against them, and experiments in rabbits showed limited success. Then came the RV144 study in Thailand in 2009, and their prospects brightened. The largest HIV vaccine trial ever, with 16,402 volunteers, RV144 tested a vaccine composed of HIV genes and proteins engineered in the lab. Results showed that people who received the vaccine were 31% less likely to contract the virus than those who didn’t receive it. Though modest, these findings represented a watershed moment in HIV research, because they meant something in the vaccine was working.

In a massive, international follow-up effort to figure out what that something was, labs around the world received blood samples and began testing different hypotheses. Out of some 30 tests performed worldwide, only Dr. Zolla-Pazner’s proved significant, showing incontrovertibly that V2 antibodies correlated with a reduced risk of infection. “It was utterly astonishing,” recalls Dr. Zolla-Pazner. “The news really gave us a shot of adrenaline.”

Regrettably, her lab would need it. On October 29, 2012, superstorm Sandy battered New York City and flooded NYU Langone’s main campus with more than 15 million gallons of water from the East River. When the VA lost power, Dr. Zolla-Pazner rounded up post-docs and friends, grabbed some flashlights, and climbed 18 flights of stairs to their lab to save what they could. Over the next two days, the researchers packed 25 years’ worth of HIV and tuberculosis specimens into containers of dry ice and liquid nitrogen, racing the packages down the dark stairwell as fast as they could to keep the samples from melting. They loaded everything onto an 18-wheeler to be whisked away to a biostorage facility in Indianapolis until their lab could be restored.

“It was absolutely crazy,” says Dr. Kong, who came with his lab members to help. Recalling the frantic rescue effort, he adds: “My back was sore for weeks.”

Arid posters from an exhibit titled “Graphic Alert: AIDS Posters from Around the World,” held in the gallery of the Medical Sciences Building in September, Dr. Susan Zolla-Pazner, professor of pathology, is joined by Dr. Xiang-Pong Kong, associate professor of biochemistry and molecular pharmacology. For nearly a decade, they have been collaborating to develop a vaccine for HIV.
Measuring five feet long and three inches wide, on average, the colon is one of the easiest organs in the body to explore from the outside in. With an endoscope—a lighted camera mounted to a flexible tube—physicians can examine its entire length, spotting and removing potentially precancerous growths, or polyps. Thanks to this and other screening techniques, colon cancer is one of the few malignancies that can not only be detected early but also can often be prevented.

Yet some polyps are more difficult to detect than others. “A colonoscopy is the gold standard for screening, but no test is perfect and some polyps can be missed,” explains Seth Gross, MD, assistant professor of medicine. Particularly challenging to spot are polyps that lay tucked behind the folds in the colon. “The colon is not an entirely smooth tube,” notes Dr. Gross. “This is why new colonoscopy technology and innovation is so important.”

For Dr. Gross and his colleagues in the Division of Gastroenterology, many of whom perform colonoscopies in a state-of-the-art facility at NYU Langone Medical Center’s new Ambulatory Care Center, one new technology may make it easier to detect these hard-to-see polyps. NYU Langone Medical Center is the first medical center in the US to acquire a new breed of endoscope, called Fuse™, or Full Spectrum Endoscopy™. With two side cameras, in addition to a camera on its tip, Fuse, which is offered to patients on a selective basis, expands the field of vision from the standard 170 degrees of a traditional colonoscopy to 310 degrees. “We have side mirrors on your car,” says Dr. Gross.

Light-emitting diodes, or LEDs, complement the trio of cameras, casting crisp, white light onto the walls of the bowel. Water jets, meanwhile, occasionally spritz the camera lenses to clear away debris. Unlike traditional scopes, which feed imagery to a single computer screen, Fuse uses three screens, one for each camera. The result is a panoramic view of the colon that leaves little room for polyps to hide.

Colorectal cancer is the second-leading cause of cancer death in the US after lung cancer. Last year, more than 130,000 Americans were diagnosed with the disease, and about 50,000 of them died from it. Physicians recommend regular screening for men and women, starting at age 50, although people with a family history of colorectal cancer or who suffer from inflammatory bowel disease should talk with their doctor about starting screening at a younger age. The benefits of colonoscopy are hard to deny. In one study following patients over two decades, researchers found that the screening tool reduced the death rate from colorectal cancer by 53%. The hope is this impressive rate will only improve as screening techniques continue to advance.

With Shingles on the Rise, Vaccination for People Age 50 and Over, Says a Leading Advocate, Is a Very Wise Investment

Herpes zoster seems to be growing more prevalent among all age groups. According to the Centers for Disease Control and Prevention (CDC), the incidence in the US rose from 1.7 to 4.4 cases per thousand people from 1993 to 2006; other studies suggest the upsurge is global. “The truth is,” notes Dr. Cohen, “no one knows why this is happening.”

Dr. Cohen urges people in their 50s to be vaccinated against herpes zoster. Available since 2006, the shingles vaccine reduces overall risk by 50% (and by almost 70% in 50–to-59-year-olds) and lessens the severity of symptoms in those who do get sick. The CDC recommends that people over 60 with a healthy immune system be vaccinated, and the Food and Drug Administration approves the vaccine for those over 50. Yet only 15% of those over 60 receive the shot, and even fewer 50-somethings do.

Dr. Cohen helped institute a program that allows anyone with a prescription to be vaccinated at Tisch Hospital’s outpatient pharmacy. Many health insurance plans don’t cover the $250 shot for people under 60, but Dr. Cohen, whose vision was permanently impaired when the varicella-zoster virus spread into her right eye, believes the potential benefit greatly outweighs the cost. Patty Newburger spent two days in the hospital before the danger of paralysis passed, and her pain still hasn’t disappeared completely. “I wish I’d gotten the vaccine,” she says. “It might have saved me from an extremely unpleasant experience.”

With Slingers on the Rise, Vaccination for People Age 50 and Over, Says a Leading Advocate, Is a Very Wise Investment

NYU Langone Becomes First Medical Center in US to Employ 330-Degree View for Colonoscopy

How do you treat a disease without a diagnosis?

Consider the case of a 33-year-old Hispanic woman from Manhattan who develops chronic headaches. She finds herself bone tired, her joints ache, and her hands and feet have swollen up like balloons. She gets dizzy, and only to have her symptoms return monthly later. She finally visits the doctor, but a diagnosis isn’t so simple. She learns that her symptoms could be the result of any number of serious diseases. Her real problem, finally revealed through a battery of blood tests, is a poorly understood, often misdiagnosed autoimmune disease called systemic lupus erythematosus, or lupus. It’s known as “the great imitator” because its symptoms mimic those of many other diseases.

Women represent 90% of lupus cases, and current research indicates the disease strikes African American women disproportionately. But that’s where the certainty ends. Diagnosing lupus, a disease in which the immune system attacks the skin, joints, and organs, has proven to be an inexact science, and prevalence estimates vary widely. “With lupus, there is no gold standard for diagnosis like cancer biopsies or cultures, just a constellation of lab results and symptoms,” explains Peter Izmirly, MD, assistant professor of medicine and co-principal investigator of the Manhattan Lupus Surveillance Program (MLSP), a collaborative study between NYU Langone Medical Center and New York City’s Department of Health and Mental Hygiene (DOH).

With $4 million in funding from the Centers for Disease Control and Prevention, the MLSP team is now sifting through the medical records of hospitals and private rheumatologists across the borough, carefully cross-referencing noted symptoms with clinical criteria for lupus. By 2015, when the study ends, the team hopes to have in hand a more accurate estimate of Manhattan’s true number of lupus cases, especially among minorities. New York is one of five sites funded by the CDC. The result from the first two sites, in Georgia and Michigan, will be published later this year.

“Because past studies have tended to focus more on white populations, there’s very little epidemiologic data on them that correlates Hispanics and Asians,” explains Dr. Izmirly, who is also director of Inpatient Rheumatology at Bellevue Hospital Center and one of seven physician-researchers at NYU Langone working on the study. “Manhattan’s high concentration of these two demographics made us a perfect fit for this study.”

Knowing who gets lupus and how to help more people find better care faster.

“Once the basic epidemiology of the disease is established, it can be shared with policymakers,” says Hilary Parton, director of new research initiatives for the DOH, and co-principal investigator of the study. “That can help facilitate better access to care for patients, as well as help fund expanded research into lupus.”

To date some 4,000 charts have been abstracted toward developing a comprehensive lupus registry for Manhattan, but investigators emphasize that much work remains. “It’s been a challenge,” acknowledges Dr. Izmirly, “but thanks to the extraordinary cooperation we’ve received from rheumatologists, who are providing the bulk of our information, we’re drawing ever closer to a good epidemiologic picture of the disease.”
His Life and Limb on the Line, One of New York’s Finest Is Saved by One of NYU Langone’s Best

Bad things had been happening on the streets of East New York, Brooklyn, in 2010, especially in the 79th Precinct, where more than 30 homicides were investigat-
ted that year. On the night of October 17, Officer Ricky Ramirez, a 29-year-old patrolman from Long Island with five years on the force, was on duty with two other plainclothes officers. On Bradford Street, they encountered a male suspect, but as they approached him, he ran into a nearby building. On a landing inside, the 17-year-old suspect suddenly turned and fired a .32-caliber pistol eight times. Ramirez, hit twice in his right leg, tumbled down a flight of stairs.

One bullet had blown up the femoral artery, and another had damaged muscles and nerves lower down. Two and a half liters of blood spurted out until one of Ramirez’ partners, both of whom were unscathed, used his police belt as a tourniquet. Rushed to a nearby hospi-
tal in Brooklyn, Ramirez, screaming in agony all the way, prepared himself to die.

Surgeons performed an eight-hour operation, saving Ramirez’ life. The fate of his right leg, however, remained uncertain. The Dacron graft clotted, and the leg wasn’t getting enough blood. Then, a nasty staph infection set in. Ramirez developed respiratory and kidney problems. As the injured leg swelled up beyond recognition, doctors even considered amputation. Dr. Richard Shapiro, MD, supervising chief surgeon of the New York City Police Department (NYPD), heard of Ramirez’ plight and called Police Commissioner Raymond Kelly. Once the patient’s lung and kidney issues were resolved, they arranged for the stricken of-

icer to be transferred to NYU Langone Medical Center, where a vascular surgeon, Neal Cayne, MD, assistant professor of surgery, took over his care.

For Ramirez’ leg to be saved, Dr. Cayne knew, the femoral artery was going to have to be rebuilt. Dr. Cayne’s plan was to remove a healthy, less crucial vein from his left leg—“half a leg’s worth” in length, he says—flip it around, and transfer it to the other leg. The vein would be “flipped” so that blood could flow in the proper direction. (Arteries transport blood away from the heart and don’t have valves, while veins carry blood toward the heart through one-way valves.) The surgically crafted vein would function as an artery, replacing the section destroyed by a bullet.

The bypass operation was a success. Infection subsided, and swelling reduced dramatically over the next few days. It was a procedure Dr. Cayne performs frequently on elderly smokers and patients with dia-
betes. “I don’t usually do bypasses on patients in their 20s,” he says.

Upon arriving at NYU Langone, Ramirez’ mood was dismal. Not only did he think he’d lose his leg, but he thought he’d lost his identity. “I loved my job. I loved working the streets,” he says. “I was scared. I was afraid those bullets had taken everything away from me.”

On Thanksgiving Day, Commissioner Kelly quickly visited Ramirez at Tisch Hospital. As Ramirez recovered from additional skin-grafting surgeries and completed a long period of rehabilitation, dozens of his brethren dropped by.

In all, Ramirez underwent 13 surgeries—at the hospital in Brooklyn and 5 more at NYU Langone. “I had to learn to walk again up a set of stairs, get into a car,” says Ramirez, now 32. “It still hurts to walk, but I have my leg, and I’m back on the job.”

Ramirez was promoted to detective and trans-
fused to the 10th Precinct in the Chelsea section of Manhattan, where he spends more time than he’d like behind a desk. His spirits are high, however, and he barely relies on a cane to walk.

In recognition of Dr. Cayne’s skill and service, the NYPD appointed him an honorary police surgeon. In October, he was inducted into an elite corps of some 350 top medical specialists, including 38 from NYU Langone. Available for phone or in-person consultations 24/7, they stand ready to help whenever an officer is injured or ill, whether at home or abroad.

On the day he was discharged, Ramirez walked out of the Medical Center on crutches, greeted by scores of cheering fellow officers and the celebratory sound of bagpipes. “Dr. Cayne was amazing,” Ramirez recalls a few months later, right after he and his wife welcomed their first child. “He not only saved my leg, but my life.”

NYU Langone Medical Center raised $1.7 million at its annual NYU Cancer Institute Gala on October 11 at The Plaza Hotel. Richard Shapiro, MD, associate professor of surgery, was honored by more than 400 guests and celebrated by three patient speakers, including Robert Friedman, MD, clinical professor of dermatology. The event was hosted by NYU Cancer Institute Advisory Board Chair and NYU Langone Medical Center Trustee Lori Fink and William L. Carroll, MD, the Julie and Edward J. Menksoff Professor of Pediatrics, professor of pathology, and director of the NYU Cancer Institute, and chaired by the entire NYU Cancer Institute Advisory Board.

THE MUSCULOSKELETAL BALL

NYU Langone Medical Center hosted its annual Musculoskeletal Ball on November 12, raising more than $2 million to support research, education, and patient care at NYU Langone’s Hospital for Joint Diseases, Center for Musculoskeletal Care, and RejuvRehab. Frank Schwab, MD, clinical professor of orthopaedic surgery and chair of the spinal deformities service, and Barbara Novick, vice chair at the investment firm BlackRock, were this year’s honorees. Guest speaker Isabella Rosellini, the film maker, actress, and model, spoke movingly of the care she received from Dr. Schwab and his team, while Novick explained the difference NYU Langone has made in her quality of life.

Over 450 guests gathered for the event, held in the Hall of Ocean 1 & 2 at the American Museum of Natural History. The gala was chaired by Medical Center Trustee and Musculoskeletal Advisory Board Chair Gary Cohn and physician cochairs Robert I. Grossman, MD, the Saul J. Farber Dean and CEO; Steven Abramson, MD, senior vice president and vice dean for education, faculty, and academic affairs; the Frederick H. King Professor of Internal Medicine, chair of the Department of Medicine, and professor of medicine and pathology; Steven Flanagan, MD, the Howard A. Rusk Professor of Rehabilitation Medicine and chair of the Department of Rehabilitation Medicine; Andrew Rosenberg, MD, interim chair of the Department of Anesthesiology; and Joseph Zuckerman, MD, the Walter A. L. Thompson Professor of Orthopaedic Surgery and chair of the Department of Orthopaedic Surgery, Richie Racine, a managing director at BlackRock, presided as. November/December 2013 | page 7

“Officer Down!”

NYU LANGONE MEDICAL CENTER

NYU CANCER INSTITUTE GALA

NYU LANGONE MEDICAL CENTER

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Inside This Issue

A Breath of Fresh Air For patients who undergo hyperbaric oxygen therapy (HBOT), “taking a dive” is actually good news. The FDA has cleared HBOT for 14 conditions, including carbon monoxide poisoning, diabetic foot ulcers, poor circulation, crush injuries, and other ailments in which oxygen deprivation plays a role. page 1

A Tree Grows in Brooklyn—and Beyond Two distinguished medical practices—NYU Langone Levit Medical in Brooklyn and NYU Langone Cardiovascular Associates in Queens and Long Island—join the Medical Center’s ever-expanding network of ambulatory care sites. page 3

Skin Sense The skin is the organ that protects all the others, so it’s most exposed to environmental stress and insult: heat, cold, stress, chemicals, and ultraviolet radiation. Dr. David Cohen, the Charles C. and Dorothea E. Harris Professor of Dermatology, fields a wide-ranging series of questions about our largest organ—and how to protect it. page 4

On the Trail of a Killer Like the human immunodeficiency virus (HIV) she has devoted her career to vanquishing, Dr. Susan Zolla-Pazner has earned a reputation for uncommon resiliency. For nearly a decade, she and her colleague Dr. Xiang-Peng Kong have been collaborating to develop a vaccine for HIV. page 5

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

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