The Triple Crown

For the Third Consecutive Time, NYU Langone Earns Magnet Recognition for Nursing Excellence

For four straight days in April, appraisers from the Magnet® Commission, which evaluates hospitals nationwide on the quality and training of their nursing staffs, met with some 400 nurses throughout NYU Langone Medical Center. “I’m the first person they met with,” explains Kimberly Glassman, RN, PhD, senior vice president for patient care services and chief nursing officer, “and the first question they asked me was ‘Did you ever think of not reapplying—or delaying your application?’ ‘That wasn’t an option,’ I said.”

When Tisch Hospital reopened on December 27, 2012, two months after Hurricane Sandy had inflicted devastating damage to the Medical Center’s main campus, Glassman met with her senior management team, as well as other members of NYU Langone’s nursing community, to discuss what it would take to meet Magnet’s application deadline of August 1. “Are you all in?” she asked. “After all we’ve been through, do you have the strength to carry this out?”

“Everybody said ‘Yes,’” Glassman recalls proudly. She was inspired, of course, but not really surprised. These were, after all, the nurses who, when Hurricane Irene had forced the Medical Center to evacuate in August 2011, volunteered in large numbers to ride out the storm with physicians in Tisch Hospital’s Critical Care Center—the only clinical unit that remained open—to care for 17 patients who were too sick to be moved. These were the nurses who, during Hurricane Sandy, helped evacuate 322 patients and transfer them to 14 other hospitals within 13 hours. These were the nurses who were hailed as “extraordinary Americans” by President Barack Obama at his 2013 State of the Union Address for their heroic efforts to safely evacuate 20 fragile newborns from the KIDS of NYU Langone Neonatal Intensive Care Unit.

Over the ensuing months, NYU Langone’s 2,200 nurses, under the guidance of Teresa Veneziano, RN, senior director for neuroscience nursing and Magnet and Quality Programs, prepared for the rigorous process of compiling voluminous data on quality, safety, and patient outcomes for the application, as well as for the all-important site visit.

“Though we’ve earned a Magnet designation twice before,” explains Veneziano, “a third one is harder to get because you have to demonstrate that you’ve outperformed national benchmarks for academic medical centers on key quality measures for at least five of eight quarters.”

“We didn’t miss a beat,” says Glassman, “and we did it all while bringing the hospital back, getting it running again, and preparing for a number of regulatory inspections.” None of this was lost on the Magnet appraisers, who commended our nurses for their “passion,” “resilience,” and “creativity” during an extended period of adversity. The vote for a redesignation was unanimous. On June 26, Tisch Hospital and Rusk Rehabilitation received Magnet recognition for the third consecutive time.

(continued on page 3)

The Nine Lives of Arthur Schneider

Two Life-Threatening Cardiac and Vascular Conditions, Two Pioneering Surgeons, and One Successful Operation

Resilient. That’s the word—if there is one—to describe Arthur Schneider, 85, of Brooklyn, New York. He has managed to survive coronary artery disease, a fractured skull, Lyme disease, an arrhythmia, rheumatic fever, and chronic kidney disease—just to name a few of his ills. But in the summer of 2013, Schneider thought his time had finally come. After experiencing shortness of breath, Schneider consulted his cardiologist, who detected a stenotic (narrowed and stiffened) aortic valve, which was further straining his already failing heart. Even more troubling, he was found to have a large aneurysm in his abdominal aorta (the main artery feeding blood to the abdominal organs and the lower extremities) that could burst at any moment.

Doctors at another local hospital told him that he would need three separate operations, most critically one to repair his aneurysm. Since that could overtax his weakened heart, they suggested starting with a balloon valvuloplasty to enlarge his aortic valve, a temporary fix that would allow his heart to recover a bit. The aneurysm repair would come next, and then—if all went well—an aortic valve replacement that would be done with traditional “open” surgery, requiring large incisions and many months of recovery and rehabilitation.

“They told me that this was the only possible solution. But I doubted I could survive three operations and three bouts of general anesthesia,” says Schneider, who had undergone major heart surgery before. At the same

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Two decades after starting her career as a critical care nurse at NYU Langone Medical Center, Sheila Malone, RN, has now been a bed coordinator for a year. She and two other coordinators are responsible for managing Tisch Hospital's 526 beds. Like air traffic controllers, they process fast-moving bits of data flying in from all angles as they direct inpatients to one or more destinations. Their objective is clear: to land everyone safely and securely.

The Not-So-Routine Physical Exam

The patient was in her 60s, and she felt good. No complaints, no worries, no troubling symptoms. She was visiting her internist, Mitchell Charap, MD, for a check-up—not nothing more. But when he pressed a stethoscope to her chest, he heard something ominous. In between the steady lub-dub, lub-dub of her heartbeat, he detected a sound akin to the static of an out-of-tune radio.

Dr. Charap, the Vivian and Edward Merrin professor of Emergency Medicine and professor of medicine, instantly recognized the problem: a leaky heart valve. That static was the sound of blood rushing back through the damaged valve. He referred the patient to a cardiologist, who recommended valve replacement. “I felt something like disbelief,” says Dr. Charap. “Here was a patient who looked and felt fine, but she was anything but.”

As one of three bed coordinators for Tisch Hospital, Sheila Malone, RN, manages 526 beds and oversees priorities. Malone enjoys the camaraderie. “These nurses are the gold standard,” she says. “They have their fingers on the pulse of every patient.”

The respect is mutual. “Because Sheila has done what we do, and done it really well,” says a veteran with 16 years on the floor, “she can laser in on every patient’s situation in very short order to get the best possible outcome.”

4:00 to 7:39 p.m. As the day shift begins to clock out, the command center pulses with a less noisy beat, but for Malone and a couple of her colleagues, no less work. At 6:00 p.m., she heads back to the postanesthesia care unit (PACU) for another huddle.

7:40 to 7:50 p.m. Back at her desk, Malone has had time for just a few sips of coffee when the phone rings. The call is from a nurse at a Connecticut hospital. “Subarachnoid hemorrhage,” says the nurse on the line. “We’re not equipped to handle it. Can you take the patient?”

Urgent care is a game changer, it always takes precedence. “Please send over the vitals,” Malone requests, rattling off questions that will expedite the process: name, age, condition, and so on. Meanwhile, she’s calculating the patient’s probable course of care. After surgery, he’ll probably require an overnight stay in the PACU, then a transfer to the neurosurgical intensive care unit. “I’ll call you back in two minutes,” she says and contacts the associate medical director, who approves patient transfer. He immediately sends back his OK. Malone notifies the accepting surgeon, who starts to assemble his team.

7:52 p.m. The admitting desk, located just outside the coordinators’ office, confirms the arrival of the necessary paperwork. All systems are go. Malone calls the nurse in Connecticut. “Please transfer the patient,” she says.

7:59 p.m. Malone checks her watch. She and her colleagues have coordinated more than 450 patient placements, and there’s still an hour left in her shift. . . .
The Triple Crown (continued from page 1)

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Only 7% of hospitals in the US have earned this coveted status. NYU Langone is one of four hospitals in New York State, and among 2% of hospitals nationwide, to receive Magnet recognition three or more times consecutively. Independent research shows that Magnet hospitals have lower mortality rates, shorter lengths of stay, increased patient satisfaction, and higher retention and recruitment rates for nurses. With 95% of its nurses holding a baccalaureate degree or higher (the national average is 56%) and roughly half having completed a year-long residency program, NYU Langone was hailed for having the most educated nursing staff in the country. “We were also cited for ‘exemplary’ performance across seven components of the Magnet model—more than any other hospital in the country,” says Glassman. “It was more than we could have hoped for.”

When do you avoid HRT?

Dr. Nachtigall: Women over age 60, because they may have plaque built up in their arteries, should not be started on estrogen replacement unless their menopausal symptoms can’t be relieved with non-hormonal alternatives, such as paroxetine, which was approved by the Food and Drug Administration last year. Women with a known clotting disorder also should not be given estrogen.

It sounds like you’re tailoring therapy to fit the individual.

Dr. Nachtigall: Yes. It’s not one size fits all. You have to look at each woman’s situation, her condition, and her family history, to decide whether and when to start HRT, in what dose, and in what form. Timing, we’ve learned, is also very important. What age is the woman? Is she perimenopausal—that is, does she have an erratic menstrual cycle? Or has menstruation ended for good? To help bones stay strong, it’s best to give estrogen within nine years of the end of menstruation.

Dr. Goldstein: Each woman has to be approached as unique. Women shouldn’t be afraid to tell their doctor everything that’s bothering them, and doctors should be ready to listen without any preconceived notions about menopause and treatment.

Feminine Forever?

Q&A with Dr. Lila Nachtigall and Dr. Steven Goldstein, professors of obstetrics and gynecology, and former presidents of the North American Menopause Society

Is there a rationale for hormone replacement therapy (HRT), or is this subverting a natural process by “medicalizing menopause”? Dr. Goldstein: Life span has increased so much in the last 150 years that women are now spending perhaps 40% of their lives in a menopausal state, meaning that their ovaries are no longer producing estrogen.

Dr. Nachtigall: At one time, no mammals outlived their reproductive system for very long. In evolutionary terms, it’s really not natural to be without estrogen.

Why is there so much confusion surrounding HRT? Dr. Goldstein: In the 2002 study that triggered the scariest stories about HRT, 16,000 women were on the estrogen-progesterone combination. The findings showed only a tiny increase in heart attacks and an even tinier increase in breast cancer. There was also a tiny reduction in hip fracture and in colon cancer, but that was ignored. Soon after that, another study came out showing that women who’ve had a hysterectomy and were given only estrogen—the only reason to add progesterone is to protect the uterus—had no increase in the incidence of heart attacks and a 20% reduction in the incidence of breast cancer. Recently, the 11-year follow-up of those women found that they were 25% less likely to get breast cancer than women not on hormone replacement therapy.

What about the risk of blood clots and strokes associated with HRT? Dr. Goldstein: Again, the danger appears to be tiny. We’re not saying that HRT is risk free—all medications carry some risk—but that the danger has been so exaggerated that it’s keeping women away from a very effective treatment.

Right now, what does the evidence show that HRT is good for? Dr. Goldstein: It keeps bones healthy and helps prevent fractures. There is no better bone drug than estrogen. It’s also good for vaginal health. It restores the normal pH balance, thus keeping bacterial growth in check and protecting against recurrent urinary tract infections. By keeping the vaginal tissue supple, it protects against painful intercourse.

Dr. Nachtigall: The doses we give are very small, and the estrogen doesn’t have to be taken systemically, as in a pill or skin patch—it can be taken as a vaginal suppository. That way the hormone stays local. It doesn’t get to the uterus or the breast.

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Nazir Savji (’15) was nearing the end of his clerkship year—the period spanning the middle of the second year to the middle of third year, when medical students get their first in-depth clinical experience—when he was assigned a 23-year-old man hospitalized with severe fatigue and muscle weakness. No one, not even NYU Langone Medical Center’s most seasoned clinicians, could determine what was ailing him. When Savji went home that night, he scoured the literature, excited about the possibility of diagnosing a rare or exotic disease. Within days, the patient started to improve and was discharged before the team could reach a definitive diagnosis. “There was little we could do, other than advise him to seek care if his symptoms returned,” Savji recalls. “It was frustrating.”

But not dispiriting. After nearly a year in the clinical trenches, serving as the primary caregiver for hundreds of patients in a variety of specialties and hospitals, Savji had seen the strengths as well as the weaknesses of modern medicine, and now he was eager to tackle even greater clinical challenges. The clerkships had served their purpose, pushing this fledging doctor out of the comfortable nest of the classroom and into the intimidating world of patient care.

“There are many transitions in medical school, but the most important one is the clerkship year,” says Michael LoCurcio, MD, associate professor of medicine and associate chair for education in the Department of Medicine. “In the first year and a half of medical school, students acquire a tremendous amount of information, but they don’t have the skills to put what they’ve learned to practical use. In the clerkships, we put faces to the diseases and give students real responsibilities.”

During this formative year, students complete four 12-week clerkships in medicine and ambulatory care, psychiatry and pediatrics, surgery and obstetrics, and neurology, which is paired with two electives. The training is spread among various inpatient and outpatient settings. Some of the most intensive hands-on experience comes in the medicine clerkship, where students play an integral role on a team of residents and attending physicians. Each student is assigned up to four patients at a time, whom they “present” to the team on early-morning rounds, detailing all the pertinent clinical findings. The rest of the day is spent assisting residents with clinical procedures and other activities, including contacting consultation services, ordering tests, and arranging outpatient follow-up. Most afternoons, the students are pulled off the team to go over cases with attendings, which offers opportunities to delve more deeply into the science behind the patients’ ailments, and the nuances of clinical decision making.

Each Wednesday afternoon during the medicine clerkship, they’re invited to spend an hour with their peers and a faculty moderator to discuss anything and everything about their daily experiences. These Humane Aspects of Medical Education sessions are voluntary, ungraded, and entirely confidential, opening the door to frank, sometimes emotional, discussions. “Decades ago, I learned, to my surprise, that students don’t talk about their concerns—they keep it all in,” recalls Jerome Lowerstein, MD, professor of medicine, who pioneered the program in the mid-1970s. “But it’s important for them to share their experiences.”

Looking back, Savji treasures the clerkship experience, for all its ups and downs. “To be able to identify what’s wrong with patients and get them feeling better and out of the hospital is a pretty satisfying experience,” he says. He hasn’t decided on a specialty yet. “I’ve always wanted to do cardiology,” says Savji, whose father, a physician, succumbed to heart disease at age 51. “But having gone through the clerkships, I’m thinking about primary care, which for me may offer the best balance between work and family.”

The Nine Lives of Arthur Schneider (continued from page 2)

time, he knew he wouldn’t survive very long without the repairs. Friends recommended that he seek a second opinion at NYU Langone Medical Center. Schneider’s timing couldn’t have been better. In recent years, NYU Langone’s cardiothoracic surgeons have more and more perfected minimally invasive procedures for repairing aneurysms and replacing aortic valves, eliminating the need to make large incisions or split the sternum. What’s more, they could perform the procedures in quick succession in Tisch Hospital’s “hybrid” operating room, one of only a handful in the country that fuses the advanced technology of a radiology suite with the design of a traditional OR. Moreover, the valvuloplasty would no longer be necessary.

Schneider welcomed the news with a healthy dose of skepticism. “The day my father died,” he recalls, “he went to the cardiologist, who told him, ‘Take it easy, and you’ll live another 20 years.’ He died of a heart attack later, the ever-resilient Arthur Schneider was back on his usual routine, including long strolls along the boardwalk in Brighton Beach and visits with his children and grandchildren.

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There’s time yet for him to choose. The days ahead will be filled with advanced clerkships, with even weightier responsibilities. “I’m anxious,” he says, “but I also feel I’m ready.”
The Reporter and the Rabbi

When It Comes to Caring for the Soul, Faith Is Where You Find It

Murray Chass knows something about patience and persistence. As a reporter for The New York Times for 39 years, he virtually redefined sports journalism, pioneering coverage of the labor, legal, and financial aspects of professional baseball and other sports. The beat writer for the New York Yankees for 17 seasons, from 1970 to 1986, he cultivated sources on the team during the turbulent years under George Steinbrenner’s ownership. In 1987, he became the first New York baseball writer to cover the sport as a full-time national reporter. So dogged was Chass’s reporting that his byline appeared over more stories than any other sportswriter in the newspaper’s history, and it set the standard for how the business of sports is covered. “I doubt that any writer rang our telephones more in search of facts,” wrote one-time baseball commissioner Bowie Kuhn. “Murray was a digger.” Chass, now 75, was inducted into the writers’ wing of the Baseball Hall of Fame in 2004.

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Rabbi David Rabhan is also in a line of work where patience and persistence are virtues. He is one of seven hospital chaplains of different faiths at NYU Langone Medical Center, who collectively provide some 20,000 pastoral visits or consultations annually. He calls himself an “unconventional Orthodox rabbi,” ministering to believers and nonbelievers alike, Jews and Gentiles both. He begins his day by reviewing a list of avowed Jewish patients. “You used to be able to tell just by looking at names,” says Rabbi Rabhan. “But with the intermingling of faiths, it’s not quite so easy.

Rabbi Rabhan’s first stop is generally the intensive care units, where the sickest of the sick can be found. That’s where he met Murray Chass for the first time. In 2003, the same year Chass won an award that led to his induction into the Hall of Fame, he was diagnosed with an intracranial hemangiopericytoma, a rare, malignant, aggressive brain tumor with a high rate of recurrence.

Chass was raised in an Orthodox household, kept a kosher home, and attended synagogue regularly, but while recovering, he says, he was in no condition to have any visitors other than his wife of 38 years, Ellen, and their family. Not even a rabbi. “I lay there in bed for three months, thinking positively,” recalls Chass. “I let Ellen deal with everyone else. She’s my hero. I don’t know if I could have survived without her.”

Ellen, who had disengaged from Judaism after the death of her mother in 1979, was also not inclined to welcome the chaplain, despite his gentle manner, warm smile, and disarming humor. But as Rabbi Rabhan puts it, “If they wave me away one day, they may welcome my visit the next.” Indeed.

“He kept showing up every morning,” recalls Ellen, marveling at Rabbi Rabhan’s intuitive sense that there was some way he could offer assistance. “At first, we just talked about mundane topics. As I began to appreciate his kindness and wisdom, we would slowly turn to matters I would call ‘spiritual.’ There were no Talmudic lessons. He just made the hospital feel like a home away from home. I felt deeply comforted. He helped me to open my heart again.”

Several years earlier, in 2000, Rabbi Rabhan and the Chasses almost saw their lives intersect, though they had no way of knowing it at the time. Rabbi Rabhan was one of three finalists for the leadership of the Chasses’ synagogue in Fair Lawn, New Jersey. He wound up instead at NYU Langone, where four of his seven daughters were born.

“I literally grew up in these halls,” he says, fondly recalling his childhood and his decision to become a rabbi rather than a physician. “They’re not dissimilar professions,” he notes. His father, Dr. Nathan Rabhan, clinical associate professor of dermatology from 1969 to 1982, ran the connective-tissue disease clinic at NYU Langone and Bellevue Hospital Center. “I believe God in His infinite wisdom provided the synchronicity that allows me to be a spiritual advisor in my dad’s old hospital.”

In 2006, Dr. Nathan Rabhan lay dying in Tisch Hospital while his son ministered to him and other patients. “I did my crying on the train coming into work,” says Rabbi Rabhan. “I learned a lot about how to advise patients. Even when things seem dire, there’s room for optimism. I refame the situation, finding the link between the finite and the infinite.”

That insight, Murray and Ellen Chass agree, has sustained them. In addition to Murray’s brain surgery, he has been treated at NYU Langone for a heart attack, triple-bypass surgery, a cataract procedure, and a life-threatening staph infection. Ellen came here for operations on her back, neck, and one of her fingers. “We would never think of going anywhere else,” she says.

The Chasses estimate that over the last decade, they’ve spent the equivalent of one full year as patients at NYU Langone. “Through it all,” says Murray, “David Rabhan has been here for us. He’s a special guy. We’re proud to have him as our rabbi.”
**Good Bug, Bad Bug**

When the term rheumatoid arthritis was first coined in 1899 to describe patients with achy, swollen joints, the idea of invisible germs causing disease was widely dismissed as quackery. The British surgeon Joseph Lister, who evolved antiseptic medicine, failed for years to convince his colleagues that bacteria, not exposure to “bad air,” were responsible for the infections that killed nearly half the people who underwent surgery.

If Lister’s detractors were alive today, they would be stunned to learn that bacteria not only exist, but that they may, every second, of the human body, outnumbering our cells 10 to 1. Most of these are good bacteria that reside in the human gut, where they work tirelessly to keep us healthy. Gut bacteria digest food, fight infectious bacteria, and fortify our immune system.

Increasingly, researchers have come to believe that the destruction of these hardworking gut bacteria can allow dangerous strains to flourish, setting off an inflammatory cascade that can trigger autoimmune diseases such as rheumatoid arthritis.

New findings by laboratory scientists and clinical researchers in rheumatology and immunology at NYU School of Medicine bolster this hypothesis, linking, for the first time in humans a specific bacterial species, *Prevotella copri*, to the onset of rheumatoid arthritis.

Using sophisticated DNA analysis to compare gut bacteria from fecal samples of healthy individuals and patients with rheumatoid arthritis, the researchers found that *P. copri* was more abundant in patients newly diagnosed with rheumatoid arthritis than in healthy individuals or patients with chronic, treated rheumatoid arthritis. Moreover, the overgrowth of *P. copri* was associated with fewer beneficial gut bacteria.

“The association between *P. copri* and rheumatoid arthritis is both remarkable and surprising,” says Dan Littman, MD, PhD, the Helen L. and Martin S. Kimmel Professor of Molecular Immunology, professor of microbiology, and a Howard Hughes Medical Institute Investigator who led the investigation.

Why *P. copri* growth seems to take off in newly diagnosed patients with rheumatoid arthritis is unclear, the researchers say. Both environmental influences, such as diet, and genetic factors can shift bacterial populations within the gut, potentially setting off a systemic autoimmune attack.

Rheumatoid arthritis is an incurable disease that affects 3.3 million Americans, the vast majority of whom are women. Physicians commonly prescribe anti-inflammatory drugs to tame immune reactions and quell swelling, but little is known about how these medications affect gut bacteria.

This latest research offers an important clue, showing that patients treated for rheumatoid arthritis carry smaller populations of *P. copri*. “It could be that certain treatments help stabilize the balance of bacteria in the gut,” says Jose Scher, MD, assistant professor of medicine, director of the Microbiome Center for Rheumatology and Autoimmunity at NYU Langone Medical Center’s Hospital for Joint Diseases, and an author on the new study. “Or it could be that certain gut bacteria thrive in inflammatory environments.”

The researchers plan to validate their results in regions beyond New York City, since gut flora can vary across geographical regions, and investigate whether gut flora can be used as a biological marker to guide treatment.

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**One Small Step for Science, One Giant Leap for Dancers?**

Subtle damage to the knees of young dancers can be detected with one of the world’s most powerful body scanners long before the dancers experience pain or other symptoms, according to a new study from researchers at NYU Langone Medical Center. These insights may help distinguish normal patterns of aging in weight-bearing joints from early signs of arthritis or overuse injuries, and may even speed the development of new therapies for arthritis.

The small pilot study, conducted jointly by investigators in the Departments of Orthopaedic Surgery and Radiology, used NYU Langone’s powerful 7-Tesla (7T) magnetic resonance imaging (MRI) scanner. Weighing 420 tons, with a magnet 140,000 times stronger that the earth’s magnetic field, the 7T is one of only a handful of such high-resolution MRI machines in the US. The scanner, used exclusively for research, can peer much deeper into the body’s tissue than conventional MRI machines.

The eight dancers studied were found to have no damage to the joint cartilage, which covers the surface of the knee joint. However, all eight had subtle damage to the back portion of the meniscus, the knee joint’s crescent-shaped fibrocartilaginous spacer. “This type of damage has been seen in other athletes in different portions of the meniscus and is similar to the abnormalities that have been described in early osteoarthritis,” explains David Weiss, MD, clinical associate professor of orthopaedic surgery and associate director of NYU Langone’s Hardness Center for Dance Injuries.

The findings suggest a powerful new way to prevent joint damage among active people. “You can’t tell dancers not to dance, but we might be able to use the 7T scanner to identify movement patterns that are harmful to dancers or other athletes,” says Dr. Weiss.

“NYU Langone is at the forefront of ultra-high-field MRI research in orthopaedics,” says Gregory Chang, MD, assistant professor of radiology and section chief for musculoskeletal imaging. Beyond the knee, the researchers are also using the 7T scanner to detect biochemical changes in the cartilage of the hip and ankle. “A major problem with arthritis is the loss of cartilage,” says Dr. Chang. He and his team have designed specialized sequences that enable them to measure changes in the intricate balance of water, collagen, and other molecules that make up joint cartilage, changes that could suggest arthritis.

Such insights could speed the development of new arthritis treatments. Today, studies of new arthritis medications primarily use X-ray imaging to detect only advanced damage in the joint cartilage. But if the 7T scanner can be used to detect joint cartilage damage in its earliest stages, researchers could assess the potential of new drugs to slow down or even halt that damage much sooner. “Our pilot study is very small,” Dr. Chang acknowledges, “but it’s a tiny first step in that direction.”

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**Sleuthing for a Better Treatment to Combat Staph**

Like any good detective tracking a killer, Victor Torres, PhD, associate professor of microbiology, wants to understand what makes *Staphylococcus aureus* tick. He and his colleagues at NYU Langone Medical Center study the bacterium, more commonly known as staph, at the molecular level, searching for clues to its deadliness.

“The pathogen can fight infectious bacteria, and fortify our immune system. If you can’t catch the killer, they reason, it likely does the same in humans. Healthy neutrophils, whether in people or mice, race through the bloodstream to kill off invading pathogens. T cells, macrophages, and dendritic cells rush in later, mounting a secondary attack to help the body clear the pathogen and remember it in the future. “Killing off the first responders and the cells involved in the secondary attack,” notes Dr. Torres, “has the potential of disarming the immune system.”

He and his team hope their findings will help to develop medications and vaccines to prevent staph from poisoning immune cells. If you can’t catch the killer, they reason, then catch its weapons.
The Sensational Centenarian

Defying the Odds, a Woman Believed to Be the Oldest Patient Ever Admitted to Tisch Hospital Stages a Remarkable Recovery

The shortness of breath began over the weekend. By Tuesday, April 1, 105-year-old Helen Duffy could no longer rise, even with help from her home aide. Normally feisty and quick-witted, Duffy grew so disoriented that she seemed unfamiliar with her home. Alarmed, her sons rushed her by ambulance to NYU Langone Medical Center’s Tisch Hospital, where doctors diagnosed her as having a late-season case of the flu leading to pneumonia—dangerous conditions for any elderly person, let alone a centenarian. “She was in bad shape,” recalls her son Edmund, 72, a seminated attorney. “She was completely irrational and hallucinating. I had never seen her like that.”

Less than 1% of the population lives to be 100, and fewer still reach 105. Of those who attain such longevity, it’s almost unheard of that their medicine chest would contain only a single prescription—in Duffy’s case, one for high blood pressure. Duffy was born to Irish immigrants on the Upper East Side of Manhattan in 1908, and she was married for 40 years to an attorney who served in both the senate and assembly of New York State (her husband, Thomas, died in 1979). She is believed to be the oldest person ever admitted to Tisch Hospital.

“When I heard that we had a 105-year-old patient, I couldn’t wait to meet her,” says Marilyn Lopez, GNP, administrative nursing coordinator of NYU Langone’s Geriatric Program, which tends to all at-risk seniors. “At such an advanced age, it makes all the difference if we travel with the patient along every step of their journey here.” On average, nearly 50% of Tisch Hospital’s inpatients are 65 or older; Lopez explains. Aside from the obvious physiological changes caused by aging, the metabolism and immune system become particularly vulnerable. Battling a serious illness can be a roller coaster ride for the elderly, whose bodies sometimes overreact to even the slightest disruption to their system. “Among older adults, there is a group that will have a disproportionately negative reaction to treatment,” explains Caroline Baumb, MD, the Diane and Arthur Beller Professor of Geriatric Medicine and professor of population health. “Anything you do can lead to a poor outcome.”

For patients who are frail, research shows that mental stimulation, good nutrition, human interaction, and as much mobility as possible can play as large a role as medi
cal treatment in slowing down or even reversing a decline. But first, Duffy needed help breathing. “We don’t have a lot of clinical evidence about how to treat patients who are 80 years old, let alone 105,” explains Joseph Ladapo, MD, Ph.D., assistant professor of population health and medicine, the hospitalist who cared for Duffy. “What I try to keep in mind is the importance of going slowly and steadily—not to be too aggressive with high doses of medications or fluid replenishment.”

Dr. Ladapo prescribed antibiotics and Tamiflu. But after just one day, he started to wonder whether a steady hand would be enough in this case. Instead of improving, Duffy became unconscious and had a low level of oxygenation, even with respiratory support. “That’s often an ominous sign,” notes Dr. Ladapo. “She was not responding like someone who was going to get better.”

A patient care technician, assigned to Duffy’s bedside 24/7 because of her state of delirium and high risk of falling, kept constant vigil, along with Duffy’s sons. Days passed. Then, almost as suddenly as it arrived, the fog lifted. “In the morning, I asked Mrs. Duffy the usual orientation questions, such as ‘Do you know where you are—in the hospital?’” remembers Katrin Hennemuth, RN, her primary nurse. “She answered, ‘yes, but I’d like to be at home.’” When Duffy cited her actual address in Jackson Heights, Queens, Hennemuth smiled, knowing that her patient had turned a corner.

Away from home, where she sometimes found the quiet to be lonesome, Duffy took full advantage of all the attention she was receiving from her admiring caregivers. Despite her limited vision, she noticed and discussed their hairstyles and shared stories about old New York. “I don’t think there was anyone who met her who wasn’t taken by her,” says Hennemuth. Never one to be timid, Duffy—a mother of three, grandmother of five, and great-grandmother of seven—insisted on lunch before being discharged on April 10. Happy to be wearing her own clothes and camel hair fedora again, she dined from a tray, surrounded by more than dozen caregivers, snapping photos on their cell phones and reveling in her triumph over the odds.
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The Triple Crown  Only 7% of hospitals in the US have earned Magnet recognition for excellence in nursing. NYU Langone Medical Center is one of only four hospitals in New York State and among 2% of hospitals nationwide to receive this coveted honor three or more times consecutively. page 1

A Safe, Secure Landing  As one of three bed coordinators for Tisch Hospital, Sheila Malone, RN, manages 526 beds and ever-shifting priorities. Like an air traffic controller, she must process fast-moving bits of data flying in from all angles as she directs inpatients to one or more destinations. page 2

The Reporter and the Rabbi  Rabbi David Rabhan is one of seven hospital chaplains of different faiths at NYU Langone Medical Center, who collectively provide some 20,000 pastoral visits or consultations annually. He calls himself an “unconventional Orthodox rabbi,” ministering to believers and nonbelievers alike, Jews and Gentiles both. page 5

The Sensational Centenarian  Less than 1% of the population lives to be 100, and fewer still reach 105—the age of Helen Duffy, believed to be the oldest patient ever admitted to Tisch Hospital. Treated for life-threatening pneumonia resulting from the flu, she staged a remarkable comeback, returning home one week later. page 7

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In memoriam

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

Top right: Taylor Wilson. Above: Linda Nwabuobi. Bottom, left (left to right): Dr. Steven Abramson, vice dean for education, faculty, and academic affairs and chair of the Department of Medicine; Dr. August Reich Dietrich, valedictorian and class president; Dr. Lynn Buckvar-Keltz, associate dean for student affairs; Dr. Stephen Bergman, keynote speaker; Dr. Robert I. Grossman, the Saul J. Farber Dean and CEO. Bottom, right: Dr. Stephen Bergman.