
Medicine

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Hey, Brooklyn. You Deserve Better. (AND IT'S HERE)

WITH PATIENT OUTCOMES THAT RIVAL
THE BEST MEDICAL CENTERS IN
MANHATTAN, NYU LANGONE HOSPITAL-
BROOKLYN IS QUIETLY SETTING A NEW
STANDARD OF CARE. HERE'S HOW.



In Southwest Brooklyn: Elevating Care for All

A photograph of Dr. Aaron Lord, a man with a beard and a grey suit, leaning over and examining a patient's hands. He is wearing a stethoscope. The background is a clinical setting with medical equipment and a blue patterned curtain.

Dr. Aaron Lord, chief of neurology at NYU Langone Hospital–Brooklyn, checks in with patient Angelica Gomez. Ms. Gomez has an autoimmune condition similar to multiple sclerosis that inflames the spinal cord.



ONE EVENING LAST SUMMER, a man in his late 50s walked into an emergency department in New Jersey feeling so sick he worried he might never walk out. He was eventually diagnosed with kidney failure and placed on dialysis to remove a buildup of toxins in his blood. Once his condition had stabilized, he was discharged and told to find a dialysis center since his condition would require weekly treatments. For the patient, who had neither health insurance nor a home, the exit plan felt more like an eviction notice.

Confused and worried, he found his way to a church-run shelter in the Sunset Park section of Brooklyn and hoped for the best. It was his good fortune that the best happened to be right around the corner. The shelter referred him to a nearby medical center, NYU Langone Hospital-Brooklyn. In recent years, the hospital has quietly set a new bar for medical care in Brooklyn, a borough in which many medical centers have historically ranked among the worst in the nation. NYU Langone Hospital-Brooklyn has set in motion a high-reaching plan to change that frustrating narrative.

“The pledge has always been to bring the same high level of care to southwest Brooklyn that patients receive at NYU Langone Health’s top-ranked hospital facilities in Manhattan,” says Bret J. Rudy, MD, senior vice president and chief of hospital operations, NYU Langone Hospital-Brooklyn, who assumed the leadership role when Lutheran Medical Center merged with NYU Langone Health in 2016. “The goal is one standard of care for all patients, no matter where they live.”

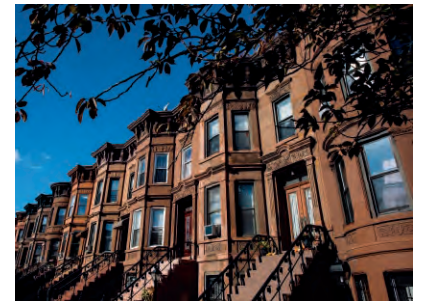
By all measures, NYU Langone Hospital-Brooklyn is succeeding—and in dramatic fashion. Since the merger, NYU Langone has invested millions in its Brooklyn hospital, directing a significant percentage of those funds to human capital. Full-time faculty have replaced a predominantly voluntary physician workforce. Board-certified critical-care specialists now cover all of its intensive care units 24/7. A fully reimagined hospitalist program ensures that every medical unit in the 450-bed hospital is covered around the clock by one of 21 hospitalists, attending physicians who are dedicated solely to caring for hospitalized patients. “It’s about providing the right

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 Sunset Park,
Brooklyn

“In the past, some patients would have to be transferred to another hospital. Now, we have the expertise to treat more complex illnesses.”

JOSEPH M. WEISSTUCH, MD, CHIEF MEDICAL OFFICER,
NYU LANGONE HOSPITAL-BROOKLYN



BROOKLYN

CONTINUED FROM P. 3



care for the right patient at the right time,” says Dr. Rudy.

NYU Langone Health tracks over 800 quality and safety metrics as part of a continual effort to evaluate and improve its performance, and the numbers emerging from NYU Langone Hospital-Brooklyn tell a remarkable story. Today, the hospital maintains one of the lowest mortality rates not just in Brooklyn—but in the nation. Its rates of hospital-acquired infections have plummeted 60% in the past three years, making it one of the safest hospitals in New York City. Patients in its Emergency Department now receive care twice as quickly as they do at other Brooklyn hospitals. Inpatients not only go home faster than they do at nearly every other hospital in New York City, but they are also less likely to wind up back in the hospital within 30 days—a critical window of time for recovery.

The turnaround is all the more striking considering that NYU Langone Hospital-Brooklyn serves a community with more residents on Medicaid than any other in the US. Compounding this is a significant percentage of uninsured patients, a population that tends to be sicker than the privately insured due to its limited access to healthcare. To better meet the needs of this community, NYU Langone Hospital-Brooklyn provided nearly \$150 million in charity care last year, a record high for the hospital.

For the homeless patient with kidney failure, stabilizing his condition required relatively straightforward clinical care. The bigger challenge was drawing up a comprehensive plan to give him the best possible chance of staying healthy once he left the hospital. “If we just sent him away after his condition had stabilized, he would have been back in the Emergency Department, or worse, he would have died,” says Frank Volpicelli, MD,



chief of medicine, NYU Langone Hospital-Brooklyn. The patient’s multidisciplinary team—including his doctors, care manager, and social worker—spent days navigating the gauntlet of paperwork required to enroll him in a New York State Medicaid plan that would ensure his access to an outpatient dialysis center. “An interdisciplinary care team stepped in and said, ‘OK, what resources do we need to marshal to make sure we can discharge this patient safely?’” adds Dr. Volpicelli.

The same rigorous approach is transforming care for patients whose cases are not so straightforward. “In the past, some patients would have to be transferred to another hospital,” says Joseph M. Weisstuch, MD, chief medical officer, NYU Langone Hospital-Brooklyn. “Now, we have the expertise to treat more complex illnesses. We’re not just a feeder for our hospitals in Manhattan.”

The investment has made all the

Patient Kurt Nelson, an amputee, adjusts a new mobility device. He’s joined by Jeffrey S. Fine, MD, chief of physical medicine and rehabilitation service at NYU Langone Hospital-Brooklyn, and Bret Rudy, MD, chief of hospital operations.

difference for patient Louis Battaglia. When the 58-year-old appliance salesman from Dyker Heights in southwest Brooklyn was diagnosed with a rare form of malignant stomach cancer in 2018, he figured his treatment would require rounds of debilitating chemotherapy and radiation treatments, along with frequent trips to Manhattan. But Camilo Correa, MD, a surgical oncologist who joined NYU Langone Hospital-Brooklyn two years ago from Memorial Sloan Kettering Cancer Center, was able to remove the cancerous tissue in a single operation. His approach—involving minimally invasive surgical techniques—allowed Battaglia to walk out of the hospital cancer free the next day and eliminated the need for chemotherapy or radiation.

“Access to care is not the same thing as access to high-quality care,” says Dr. Rudy. “It’s our mission and our duty to redefine what healthcare means for the people of Brooklyn.”

Follow the Data

Why Trauma among Seniors Is So Easy to Overlook—and What We're Doing about It

IN 2018, GALINA GLINIK, MD, medical director of trauma at NYU Langone Hospital–Brooklyn, was examining patterns of injuries among recent cases when she noticed a curious trend. In some elderly patients, rib and pelvic fractures had gone undiagnosed at other emergency departments. The pattern was troubling. Hairline fractures can be notoriously difficult to discern on X-rays, but they can do real damage. In some cases, Dr. Glinik notes, they can cause internal bleeding and collateral illnesses, such as pneumonia. “We realized that when injuries were not fully investigated, some patients were released too early or without being properly assessed,” she says.

That gap inspired Dr. Glinik and her colleague Ian Wittman, MD, the Emergency Department’s chief of service, to join forces with other specialists at the hospital and create a standardized protocol to ensure that these hidden injuries would be promptly diagnosed and treated. Since the launch of their protocol, called the Geriatric Trauma Program, at NYU Langone Hospital–Brooklyn’s Level I Trauma Center in January 2019, it has since been adopted by NYU Langone Health’s other Level I Trauma Center at NYU Winthrop Hospital on Long Island.

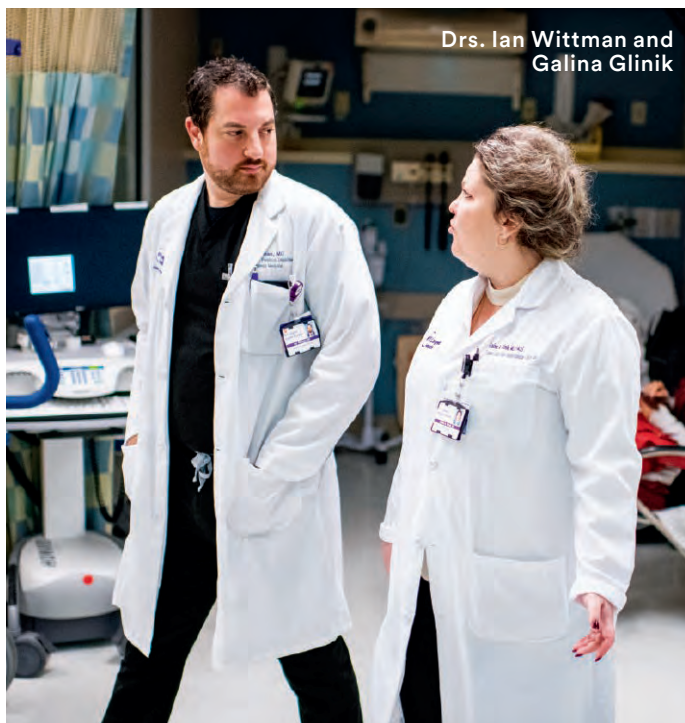
In Sunset Park and other neighborhoods served by NYU Langone Hospital–Brooklyn, care for the elderly is a growing concern as the population ages. In the past decade, the number of local residents age 65 or older has jumped from 8.3% to 10.7%. Seniors make up some 40% of the patients admitted to the hospital’s Emergency Department, and falls account for about 80% of their injuries.

“The elderly are more vulnerable for many reasons,” explains Prashant Sinha, MD, chief of surgery at NYU Langone Hospital–Brooklyn. “They’re weaker, have poor balance, have brittle bones, and take more medications, including blood thinners that make them susceptible to brain bleeds if their head hits the ground. Just from falling out of a chair onto a rug, an 80-year-old might suffer the kind of physiologic damage that a 30-year-old sustains in a car crash.”

Consider This

360,000

THE NUMBER OF ELDERLY PEOPLE WHO LIVE IN BROOKLYN, ACCOUNTING FOR 14% OF THE BOROUGH’S POPULATION, AND THE HIGHEST NUMBER OF SENIORS RESIDING IN ANY COUNTY OF NEW YORK STATE.



Drs. Ian Wittman and Galina Glinik

Today, when an elderly person arrives in the Emergency Department after a fall, or if they’re suspected of having sustained a head injury or long bone fracture, the patient is elevated to a status of urgency just below that applied to the most severe traumas. Within minutes, an attending physician in emergency medicine and a member of the trauma team are at the patient’s bedside, performing an evaluation and fast-tracking lab tests and imaging studies. In the first 12 to 16 hours, a multidisciplinary care plan is in place that involves a physical therapist, a social worker, a dietitian, and a pharmacist, who ensures that none of the patient’s medications cause drowsiness or dizziness.

Since the program’s inception, the number of geriatric trauma patients has risen from 90 per month to about 130. The time they spend in the Emergency Department averages four hours—half what it used to be—and fewer of these patients need to be readmitted.

Dr. Wittman emphasizes that this is preliminary data, but he and his colleagues have already received some heartening feedback. “EMS technicians have discretion over where they bring patients,” he explains. “Our growing volume of geriatric admissions is almost certainly due to recognition within our community that we provide exemplary care to the elderly.”



FOR MORE INFORMATION about the Geriatric Trauma Program at NYU Langone Hospital–Brooklyn, visit nyulangone.org/geriatrictrauma.

Good to Know

WHAT SETS US APART IN BROOKLYN



NYU Langone Hospital–Brooklyn is nationally recognized as a leader in clinical care.

★ Comprehensive Stroke Care

Our Comprehensive Stroke Center has been certified by the Joint Commission two consecutive times, placing it among the top 10 stroke centers in the US.

★ Stroke Rehabilitation

For four consecutive times, we have been certified by the Joint Commission for stroke rehabilitation. We are now the only hospital in New York, New Jersey, and New England to have both a stroke rehabilitation program and a Comprehensive Stroke Center certified by the Joint Commission.

★ Perinatal Care

In 2019, we received Joint Commission certification for perinatal care, making us the first hospital in Brooklyn and New York State to merit the designation.

★ Trauma Center

With a Level I Trauma Center nationally accredited by the American College of Surgeons, NYU Langone Hospital–Brooklyn is one of the few hospitals in the borough qualified to treat the most severe injuries. Each year the Trauma Center cares for some 2,100 patients who have suffered life-threatening injuries.

★ Bariatric Surgery

We are accredited by the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program as a comprehensive center providing high-quality patient-centered care for adolescents and adults.

Digital Contagions

Beware Dr. YouTube— 4 Ways to Spot Medical Misinformation Online

SOME 70% OF Americans report that health information they find on the Internet influences their decision about how to treat a medical condition, according to a study by the Pew Research Center. But how to know if it's accurate? NYU Langone Health researchers set out to find some answers by reviewing the most popular YouTube videos about prostate cancer. YouTube, the largest video-sharing social media platform, is viewed by 73% of adults in the US.

Stacy Loeb, MD, who chairs a panel of social media experts for the American Urological Association, led a team of investigators who examined the site's first 150 videos in a search on prostate cancer, out of more than 600,000 on that topic. They evaluated each one for accuracy, level of misinformation, and commercial bias. Because prostate cancer is one of the most common forms and a broad array of treatment options are available with different benefits and risks, advice on the topic is in high demand. "Patients who feel that they aren't getting all the information they need from their physician are more likely to consult online sources," Dr. Loeb explains, "but that's where they might be exposed to misinformation."

The study, published online in the journal *European Urology*, found that 77% of the videos analyzed had biased or potentially misleading content in either the video itself or its comments section. But the more

surprising finding, says Dr. Loeb, was the discord between scientific quality and user engagement. "Just because a video gets a lot of 'likes' or 'thumbs up' doesn't necessarily mean it's accurate," she explains. "Some of the most reliable videos showed physicians at their desks recorded on a phone, as opposed to other snappy videos that were commercially biased."

As long as social media platforms remain unregulated, health consumers are on their own. To help them feel more empowered, Dr. Loeb offers a checklist of questions to consider when evaluating medical videos online:

- ☐ **When was it made?** Videos older than one year may no longer be valid because medicine is always evolving. Sort your searches by date.
- ☐ **Who made it?** If no source is cited or you've never heard of the one that is, the information may not be authoritative. Consult reputable organizations and government agencies, such as the National Institutes of Health.
- ☐ **Is it balanced?** When there's no mention of risks or multiple treatment options, the content is probably biased.
- ☐ **Is it realistic?** Beware of claims such as "miracle cure" and "natural remedy." If it sounds too good to be true, it probably is.



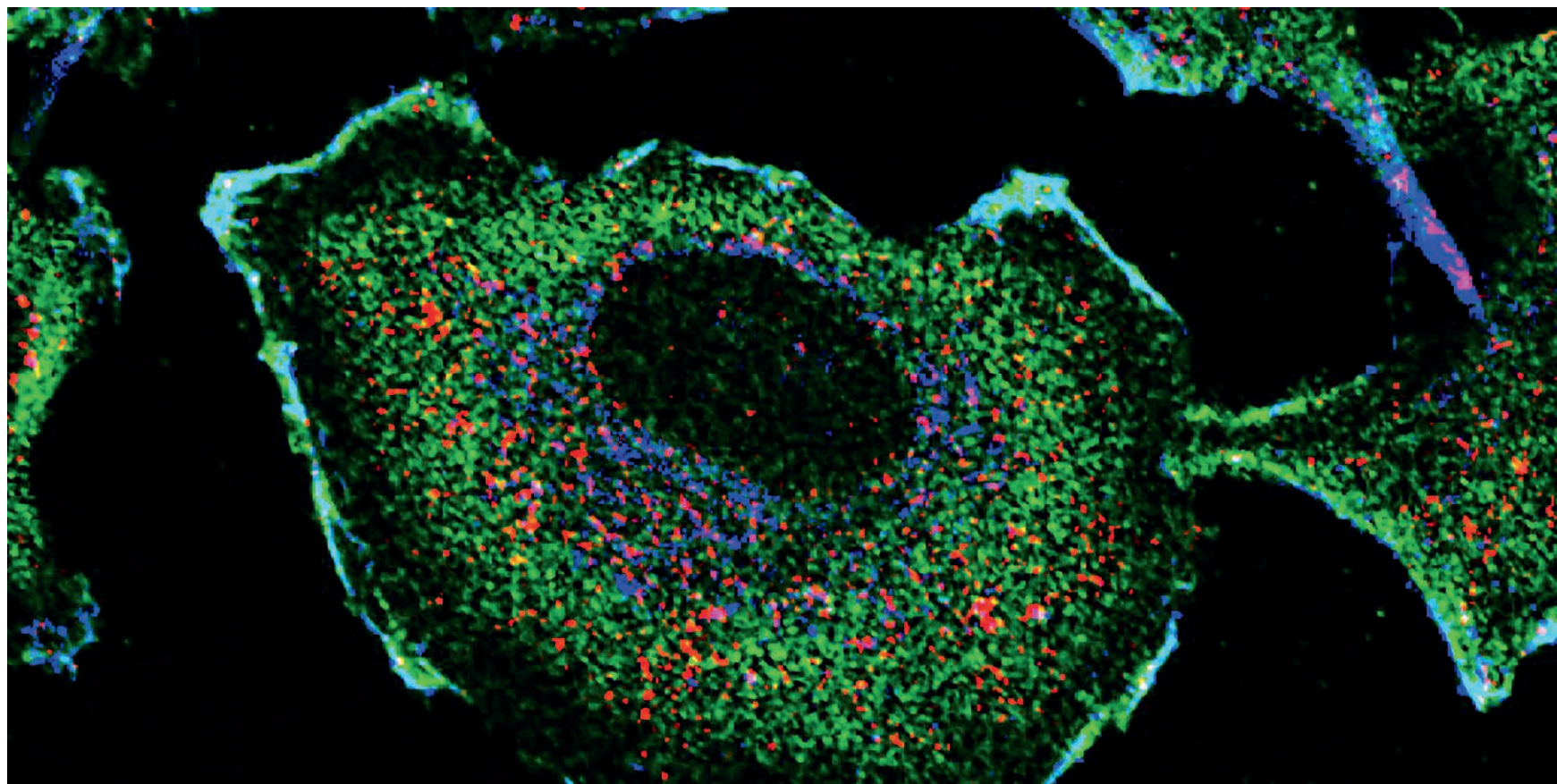
Consider This

77%

OF THE VIDEOS ANALYZED HAD BIASED OR POTENTIALLY MISINFORMATIVE CONTENT IN EITHER THE VIDEO ITSELF OR ITS COMMENTS SECTION.



TO FIND A DOCTOR who treats prostate cancer, visit nyulangone.org/prostatecancer or call 212-731-6000.



Cancer cells with
a RAS gene mutation

In the Lab

To Stop a Deadly Cancer, Cut Off Its Food Supply

LIKE ALL LIVING things, cancer, too, must eat to survive. Yet some tumors, such as those in the pancreas, manage to thrive even in environments where nutrients are scarce. A new study by researchers at NYU Langone Health, published in the journal *Nature*, describes for the first time how this mysterious survival technique works and, critically, how it might be sabotaged to treat or even cure pancreatic cancer.

Pancreatic ductal adenocarcinoma is rare but deadly, killing most patients within two years of diagnosis. New treatment strategies are badly needed. “To address this high unmet need for patients, we really need to think about entirely new ways of targeting these types of cancer,” says first author Craig Ramirez, PhD, who spearheaded the research as a graduate student and postdoctoral fellow in the laboratory of Dafna Bar-Sagi, PhD, senior vice president, vice dean for science, and chief scientific officer at NYU Langone.

In the 1980s, Dr. Bar-Sagi discovered that a protein called RAS can kick-start a scavenging mechanism that allows cancer cells to engulf nutrients from their immediate surroundings to survive during lean times. This seminal finding helped explain, in part, why mu-



Drs. Dafna Bar-Sagi
and Craig Ramirez

tations in RAS have been linked to 95% of pancreatic cancers and nearly one-third of all cancers. Until now, though, little has been understood about the cellular chain reactions that make it all work.

“To learn more about what exactly controls this scavenging mechanism, we began with a large

screen that identified a few potential regulators,” explains Dr. Bar-Sagi. “From there, the lab did a lot of painstaking detective work to knock out the candidates one by one, ask

how their absence affected the process, and start connecting the dots.”

The end result is a kind of map that shows how multiple interconnected proteins in cancer cells with certain RAS mutations work together to drive the scavenging process and thrive under harsh conditions.

The lab focused on two proteins in particular: SLC4A7 and vacuolar ATPase. Both are required for the intricate series of steps that lead a cell’s membrane to bulge out and form a pocket to engulf nearby nutrients, fueling tumorous growth. In pancreatic cancer cells, the researchers saw increased levels of the SLC4A7 protein and more vacuolar ATPase congregating in the right location for the scavenging to occur.

“We are now searching for drug candidates that might inhibit the action of these two proteins as potential future treatments that block the scavenging mechanism,” says Dr. Bar-Sagi. “Both are in principle good targets because they’re linked to cancer growth and operate near the cancer cell surfaces, where a drug delivered through the bloodstream could reach them.”

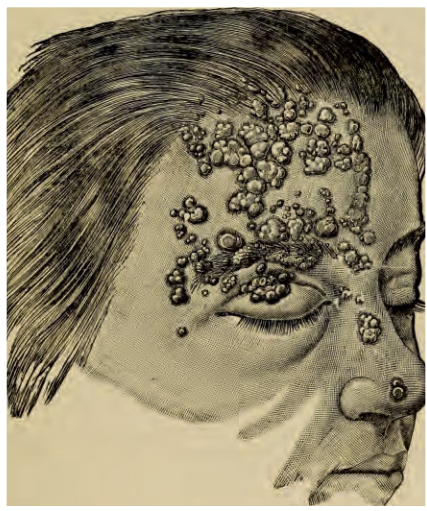


TO FIND A DOCTOR who treats pancreatic cancer, visit nyulangone.org/pancreaticcancercenter or call 212-731-5655.

5 THINGS YOU SHOULD KNOW ABOUT

Shingles

The Explainer



TWO YEARS before Elisabeth J. Cohen, MD, joined NYU Langone Health's Department of Ophthalmology in 2010, she suffered a bout of shingles, or herpes zoster, that left her vision permanently impaired. The disease ended her career as a distinguished cornea surgeon, but she remains at the forefront of medicine. Dr. Cohen has become an ardent advocate for more widespread vaccination against the disease—an intensely painful infection caused by localized reactivation of the virus that causes chicken pox. She is leading a multisite clinical trial, funded by a \$15 million grant from the National Eye Institute, to evaluate new treatment protocols for the form of shingles that afflicted her. In November, Dr. Cohen was invited to deliver the George E. de Schweinitz Memorial Lecture, the nation's oldest lecture in ophthalmology. Here, she shares some important information and insights about a disease that affects one in three Americans.

1

The disease is common, and on the rise.

Shingles strikes when a weakened immune system allows the chicken pox virus to reawaken, travel down nerves, and attack a patch of skin. More than 1 million new cases are diagnosed each year in the US. Within the first three months of an episode, patients are at increased risk for stroke. "Shingles affects so many people because chicken pox is almost universal," says Dr. Cohen. Vulnerability starts around age 40, when immunity to the virus starts to wane. Susceptibility increases with age, but the highest number of cases occur among people in their 50s. Although young people can get shingles, the number has declined since a vaccine for chicken pox became available in 1995. Over the past six decades, the incidence of shingles has increased fourfold across all age groups, but Dr. Cohen acknowledges that "no one knows why this is happening."

2

A new vaccine is highly effective.

The good news is that the Shingrix vaccine, approved by the FDA in 2017, is 97% effective (and 90% effective for those over 70.) The bad news is that data show that most eligible Americans have never been vaccinated. "Shingrix contains a viral protein, not a live virus, that is much more effective and safer than Zostavax, the older vaccine," explains Dr. Cohen. "There's no doubt that people 50 and older should get both Shingrix injections, two months apart, even if they've previously received Zostavax." People who have had shingles should wait a year or so before getting vaccinated. Know, too, that about 15% of people have severe local arm pain and/or flu-like symptoms for a few days after each shot.

3

Research holds promise for shingles of the eye.

Shingles causes painful blisters that can appear on any part of the body. In about 20% of cases, it attacks the eye, causing a dangerous condition called herpes zoster ophthalmicus, or HZO. While acute antiviral therapy can shorten the duration of the rash, it reduces eye complications by only 50% and does not prevent chronic pain. Dr. Cohen hypothesizes that because HZO bears similarities to herpes simplex eye disease, which is reduced by prolonged low dose antiviral therapy, good results might be achieved with similar treatment. The Zoster Eye Disease Study (ZEDS), supported by the National Eye Institute of the National Institutes of Health, tests whether Valacyclovir, a drug approved for prolonged treatment of herpes simplex infections, is also effective in reducing complications of HZO. For more information about ZEDS, please email ZEDS.CTA@nyulangone.org.

4

Statin drugs may elevate your risk.

Studies show that people who take cholesterol-lowering statin drugs are at higher risk for developing shingles. "A possible reason," says Dr. Cohen, "is that statins may affect the immune system." Because there are no shingles studies on people under 50 who take statins, Dr. Cohen recommends that people in this category consult their doctor about whether to get vaccinated. "If I were an internist or cardiologist treating a younger adult with high doses of statins," notes Dr. Cohen, "I would think about recommending the Shingrix vaccine on a case-by-case basis, even though it is not FDA approved for people under 50."

5

If you're eligible, get vaccinated!

Data suggests that people vaccinated against chicken pox are less likely to get shingles because their nervous system is populated by a weaker form of the chicken pox virus. "It's hard to eradicate a disease completely," notes Dr. Cohen. "But we think shingles will be less of a problem in vaccinated populations." Meanwhile, Dr. Cohen hopes that now that a more effective vaccine is available, more doctors will receive it themselves, putting them in a better position to urge patients to get vaccinated. "We need doctors to strongly recommend Shingrix to their 50-plus patients the way they do the flu vaccine," she says.



TO FIND A DOCTOR who treats shingles, visit nyulangone.org/shinglesdoctors or call 646-929-7815.



Teachable Moments

Confident Doctors from Day One

“YOU ARE THE INTERN on call, and you have 15 minutes to write down all the patient safety hazards you can identify.” With those instructions, several of the 200 or so physicians-in-training who arrived at NYU Langone Health just prior to their first day of residency on July 1 are led into a room where the “patient,” a mannequin in a bed, is surrounded by dozens of potential threats. The training exercise is part of First Night on Call,

an innovative program launched three years ago by NYU Grossman School of Medicine.

The program is designed to help interns prepare for the most intimidating stretch of their professional training: their first days in a hospital. “Our goal is to create a culture of safety from day one,” explains program director Sondra Zabar, MD, director of the Division of General Internal Medicine and Clinical Innovation and of the School’s Standard-

ized Patient Program, which employs actors to portray patients, family members, and caregivers during medical training exercises.

The four-hour training session, held at the New York Simulation Center for Health Sciences, introduces interns from 15 residency programs to common clinical encounters. In one exercise, residents practice how to obtain informed consent. In another, they learn when and how to escalate a prob-

lem to a superior. Faculty members review their observations with the residents, identifying teachable moments. “We try to leave them with pearls,” says Jeffrey Manko, MD, director of the Graduate Medical Education Professional Development Program. “Our message is that it’s okay to report problems or mistakes because that’s how you improve the system—and become a better physician.”

Sports Health

FOR YOUNG ATHLETES, A BETTER GAME PLAN TO RECOVER FROM INJURIES

When pediatric orthopedic surgeon Cordelia Carter, MD, recently repaired a high school pitcher’s torn elbow ligament, the patient told her that every pitcher on his team had undergone either shoulder or elbow surgery. Dr. Carter wasn’t surprised. She’s seen a dramatic rise in injuries among preteens and adolescents who specialize in a single sport. In fact, the American Academy of Pediatrics reports that up to 50% of all injuries in pediatric sports medicine are related to overuse.

In response to a growing demand for pediatric musculoskeletal health specialists, NYU Langone Health’s Hassenfeld Children’s Hospital recently launched the Center for Young Athletes, which Dr. Carter codirects with sports medicine specialist Dennis Cardone, DO. In addition to common sports injuries of the knee, shoulder, hip, and elbow, the Center’s experts specialize in conditions unique to children, including “little leaguer’s elbow” and “gymnast’s wrist.” The center’s multidisciplinary team expects to care for 3,000 young athletes annually. “Our primary goal is to get young injured athletes of all levels back to competing quickly and safely,” says Dr. Carter.



Clinical Trials

A Brave Boy Meets a Pioneering Doctor and Averts Life with a Breathing Tube

DANI AND JOHN BOYER knew there was a 50-50 chance that their children might inherit John's disease. John was born with a genetic condition called neurofibromatosis 1 that causes benign tumors to grow on nerve tissue. Relatively rare, it affects about 100,000 people in the US. Like many with the condition, John has had few symptoms, aside from some bumps on his skin, so the Boyers had little cause for concern. "For me, it's a cosmetic issue," he says. When their first son, Thomas, was born in 2006, his symptoms were so mild that he was 11 before he was even diagnosed.

Then came their second son, Nicholas, born in 2008. Nicky, too, has neurofibromatosis 1, but his experience has shown a far more harrowing side of the disease. The first sign of trouble appeared at age two and a half when a lump emerged on the right side of Nicky's neck. Six months later, scans revealed a tumor compressing his spine so dramatically that it required emergency surgery to remove it, followed by two spinal fusion procedures to relieve scoliosis. "We had no idea how severe the disease could be," says Dani.

Neurofibromatosis 1 is caused by a gene mutation that disrupts a cellular

pathway common to melanoma and other cancers. It's incurable; at best, doctors try to manage symptoms, which can vary widely. At NYU Langone Health's Comprehensive Neurofibromatosis Center, experts in neurology, neurosurgery, neuro-oncology, otolaryngology, and other specialties converge to treat the condition at its most complex.

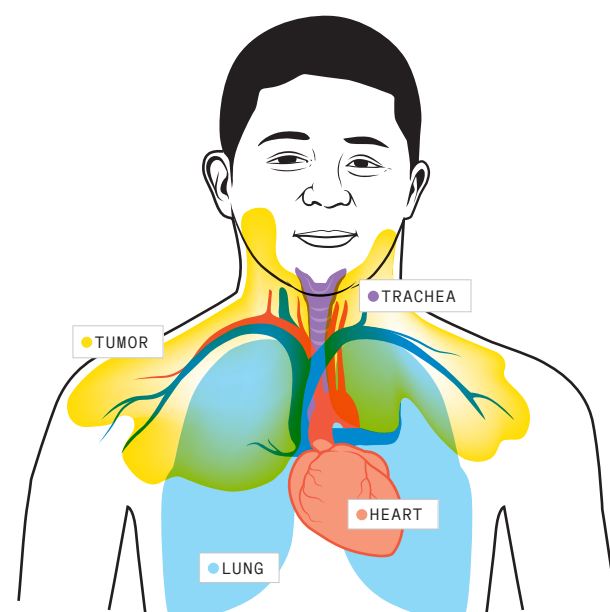
For Nicky, things got worse. By age nine, the tumor protruding from the side of his neck had swelled to the size of a grapefruit. An MRI revealed that it had expanded extensively inside his body, too, encasing his lungs and the blood vessels leading to his heart, along with the nerves that control swallowing and breathing. With the tumor deemed inoperable, a neurologist at another institution told the Boyers there was no way to stem its growth, and that Nicky would likely require feeding and breathing tubes within five years. "This is our little boy," says Dani. "There was no way we were accepting that as a final answer."

A friend whose child also has neurofibromatosis 1 urged the Boyers to schedule an appointment with NYU Langone Health neurologist Kaleb Yohay, MD, director of the Center.

"Before this, we had no medical therapies to offer. It's a significant breakthrough."

Neurofibromatosis 1

In this condition, a gene mutation alters a cellular pathway common to melanoma, causing tumors to grow along nerve tissue. Though benign, some tumors may grow so large that they impede vital organs, as in Nicholas Boyer's case.



As a member of Hassenfeld Children's Hospital, and the Departments of Neurology and Pediatrics, Dr. Yohay and his team treat more than 850 patients each year, making theirs the largest neurofibromatosis clinic in the nation.

Dr. Yohay offered Nicky a new option. Since 2012, NYU Langone Health has been among 15 medical centers nationwide (and the only site in the tristate area) conducting clinical trials of experimental therapies for neurofibromatosis. Some of the medications, approved for treating cancer, inhibit the cellular pathway that promotes tumor growth by targeting an enzyme called MEK. Results so far have been promising: a National Cancer Institute trial found that 72% of enrolled patients saw their tumors shrink significantly. "Before this, we didn't have any medical therapy to offer," says Dr. Yohay. "It's a significant breakthrough."

Nicky started a trial for a MEK

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ON P. 12



TO FIND A DOCTOR who treats neurofibromatosis, visit nyulangone.org/neurofibromatosiscenter or call 212-263-9695.

Kaleb Yohay, MD, and patient Nicholas Boyer, 11, at the Fink Children's Ambulatory Care Center, part of Hassenfeld Children's Hospital at NYU Langone.



BRAVE BOY

CONTINUED FROM P. 10



inhibitor called binimetinib last February. Within four months, the tumor had decreased by 27%. Nicky's jawline, once distorted from the tumor, regained definition. "The day Dr. Yohay gave us the results, he was so happy he was in tears. We all were," says Dani.

Unfortunately, Nicky was later disqualified from the trial after six months due to unexpected weight gain (a possible side effect of the medication), but Dr. Yohay was undeterred. He encouraged the Boyers to consider a related medication, selumetinib, expected to soon become the first drug approved by the FDA specifically to treat neurofibromatosis 1 tumors. "I'm optimistic we can continue to shrink the tumor and prevent it from growing again," says Dr. Yohay. "These therapies could be a paradigm shift in dealing with this disease."

For Nicky, now 11, the good news is just one of many reasons to keep smiling. A preternaturally happy, outgoing boy who wears his scars with pride, he is, in his mom's words, "the mayor of fifth grade" at PS 19 in the Bronx. His condition has yet to keep him from playing with friends or sideline him from Little League. With the new treatment, the hope is that it never will. "Dr. Yohay has gone way above and beyond to help Nicky," says Dani. "I only wish we'd found him sooner."



"This is our little boy. There was no way we were accepting that as a final answer."



Kenneth G. Langone's transformational gift entitled him to name NYU School of Medicine for himself, but instead, he chose Dean and CEO Robert I. Grossman, MD (right).

Education

NYU SCHOOL OF MEDICINE GETS A NEW NAME IN HONOR OF THE DEAN WHO HAS LED IT TO NEW HEIGHTS

"BUILD YOUR DREAM," Kenneth G. Langone, chair of NYU Langone Health's Board of Trustees, exhorted Robert I. Grossman, MD, when he was appointed dean and CEO more than a decade ago. Dean Grossman took those words to heart, reimagining key components of the institution, including the School of Medicine, which fulfills NYU Langone's educational mission. Throughout his tenure, he has translated ambitious goals into a can-do spirit that has spawned historic initiatives in medical education. In honor of those achievements, the School Dean Grossman heads has been renamed NYU Grossman School of Medicine. The surprise announcement was made by Ken Langone and his wife, Elaine, on November 4 at NYU Langone's annual Violet Ball. The Langones were also honored—Ken Langone for his 20 years of leadership as board chair, and the couple for their steadfast commitment and extraordinary generosity, which earned them the right to name the School of Medicine.

Under Dean Grossman's progressive leadership, the School has helped reshape medical education. Its Curriculum for the 21st Century, launched in 2010, introduced clinical training at the start of the student's journey. Three years later, the School pioneered a three-year MD pathway for select students. In 2018, the School became the first top-ranked medical school to award its MD students full-tuition scholarships. Last year, a partnership between NYU and NYU Langone Health created NYU Long Island School of Medicine, also tuition free, the only accelerated three-year MD program in New York State focused on primary care.

"I'm truly touched by this recognition of the School of Medicine's accomplishments," said Dean Grossman. "Working with Ken—and with all our supporters, friends, staff, and faculty—to achieve the aspirational goals we set for our School represents the fulfillment of a long-standing vision."

Science

Clogged Arteries? This Study Is for You

CORONARY ARTERY disease occurs when plaque clogs the blood vessels that branch off the aorta, depriving the heart of oxygen-rich blood. The leading cause of death and disability worldwide, it affects 17.6 million Americans, killing 450,000 annually. Each year, more than a million patients in the US have stents placed to treat coronary blockages; 200,000 have bypass surgery. These invasive measures can save lives after a heart attack. But experts have long debated whether they're more effective than medication alone at preventing heart attacks or death in patients whose disease is stable—that is, those who haven't had recent cardiac events or changes in symptoms.

A clinical trial led by Judith S. Hochman, MD, the Harold Snyder Family Professor of Cardiology and senior associate dean for clinical science, may have finally settled that question. The International Study of Comparative Health Effectiveness with Medical and Invasive Approaches (ISCHEMIA) was funded by an \$84 million grant from the National Heart, Lung, and Blood Institute, the largest award in NYU Langone Health's history. The study randomly assigned 5,179 patients with stable ischemic coronary disease—enrolled at 320 sites in 37 countries—to either a conservative or an invasive treatment strategy. The conservative group initially received only medications and counseling in heart-healthy habits. If conservative therapy failed, patients underwent an exploratory cardiac catheterization procedure, which in some cases resulted in stenting or bypass surgery. The invasive group received similar types of medications and counseling, but underwent stenting or surgery, if feasible, soon after diagnosis. Patients were followed for a median of 3.2 years.

The results, presented last November at the meeting of the American Heart Association, were unequivocal: although the invasive strategy significantly outperformed the conservative approach in controlling chest pain (angina), it offered no advantage in preventing cardiovascular-related death, heart attack, hospitalization for unstable angina or heart failure, or resuscitation after cardiac arrest.

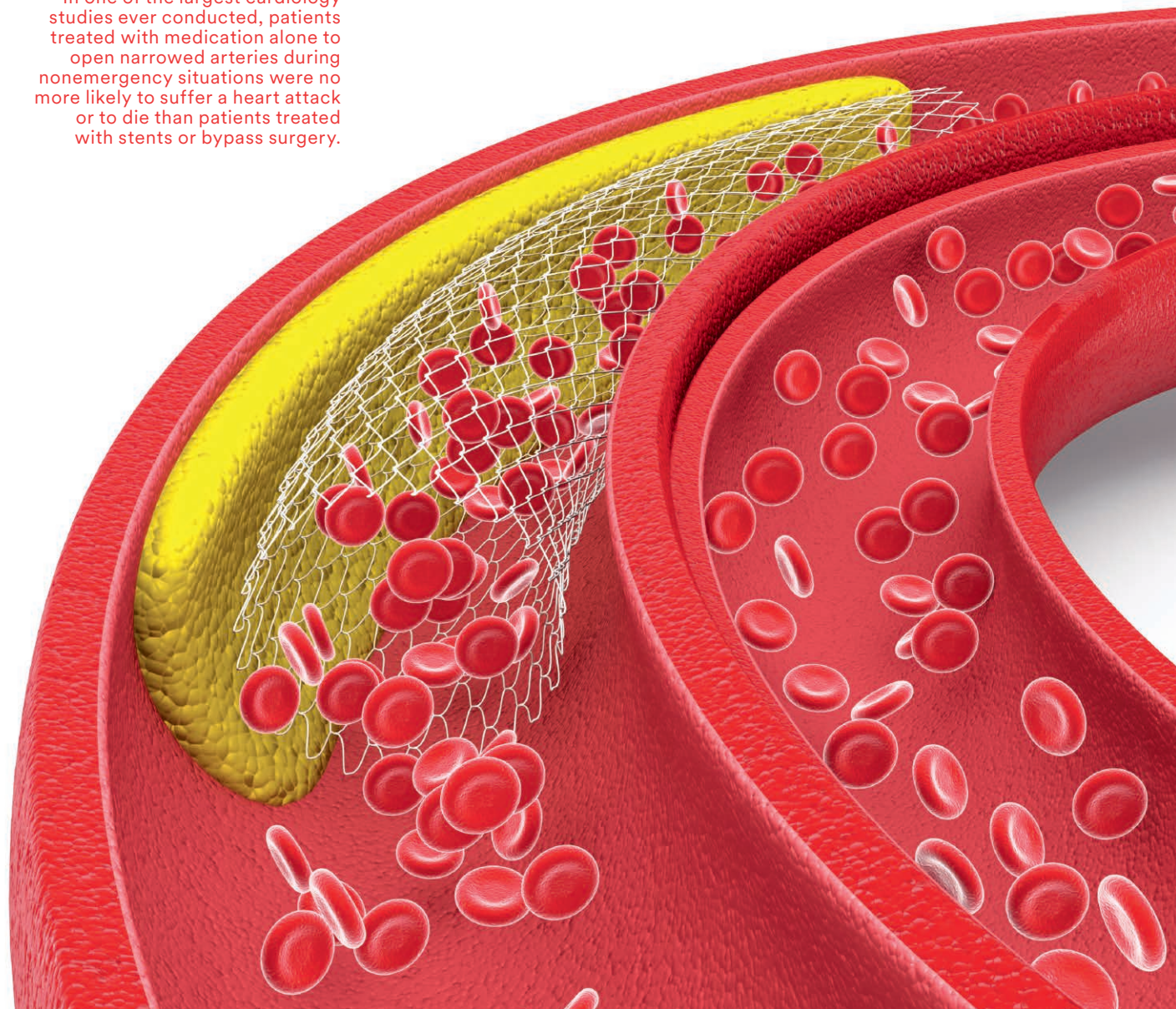
“Individuals with stable coronary heart disease should know that if they have no angina, or if it's well controlled by medication, there is no added benefit from an invasive strat-

egy,” Dr. Hochman says. “This trial provides important information for patients as they discuss treatment decisions with their doctors.”

It could also lead to changes in medical guidelines. The researchers estimate that 20% of stent procedures performed in the US each year are for patients with stable heart disease. Of those, 24%—about 23,000—are performed on patients without symptoms. If those procedures were avoided, the team concludes, the cost savings could be at least \$570 million annually.

“Individuals with stable coronary artery disease should know that if they have no chest pain, or if it's controlled with medication, there is no benefit from an invasive strategy.”

In one of the largest cardiology studies ever conducted, patients treated with medication alone to open narrowed arteries during nonemergency situations were no more likely to suffer a heart attack or to die than patients treated with stents or bypass surgery.



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Extraordinary Cases

Laser Surgery in the Womb Saves Twins

EVEN AFTER FIVE YEARS of unsuccessful fertility treatments, Nicole and Matthew Giannone still dreamed of having a baby, but they were cautiously optimistic. “We didn’t want to get our hopes up,” says Nicole, 40, an office manager who lives in Wantagh, Long Island. So when the couple learned in January 2018 that Nicole was pregnant with twins, they were ecstatic. “After all that we had been through,” she says, “we just cried.”

In May, while Nicole and her husband were in Florida for her brother’s wedding, she started to feel bloated and exhausted, with severe back pain. “Since this was my first pregnancy, I really didn’t know what to expect,” she recalls. “So I didn’t think anything of it.” Several days later, during her 20th week, Nicole visited her gynecologist at NYU Winthrop Hospital, Salvatore Lopresti, DO, for a sonogram, which was scheduled every two weeks because she was carrying twins. The scan revealed that one fetus was hidden behind the other and could not be seen moving. Concerned, Dr. Lopresti referred the couple to Martin Chavez, MD, director of maternal and fetal medicine and fetal surgery at NYU Winthrop.

A decade ago, Dr. Chavez launched the hospital’s fetal surgery program—the only one on Long Island—to enable high-risk pregnancies to progress to later stages, giving fetuses a better chance to survive. “Dr. Chavez brings a rare expertise in fetal laser procedures,”



notes Ashley Roman, MD, the Silverman Associate Professor of Obstetrics and Gynecology and director of the Division of Maternal-Fetal Medicine at NYU Langone Health. “Now that his skills are available at our main campus in Manhattan for certain complicated cases, there’s no type of high-risk pregnancy we can’t handle.”

When Dr. Chavez met with Nicole, his own sonogram confirmed what Dr. Lopresti had suspected: twin-twin transfusion syndrome, a rare disease of the placenta in which blood flows unevenly from the shared organ to the two developing fetuses. In Nicole’s case, one

“If we didn’t intervene, Nicole would have lost one or both of her babies.”

Martin Chavez, MD, with Nicole and Matthew Giannone, and their healthy twin boys

fetus was receiving too much blood while the other was receiving too little. “If we didn’t intervene,” says Dr. Chavez, “Nicole would have lost one or both of her babies.”

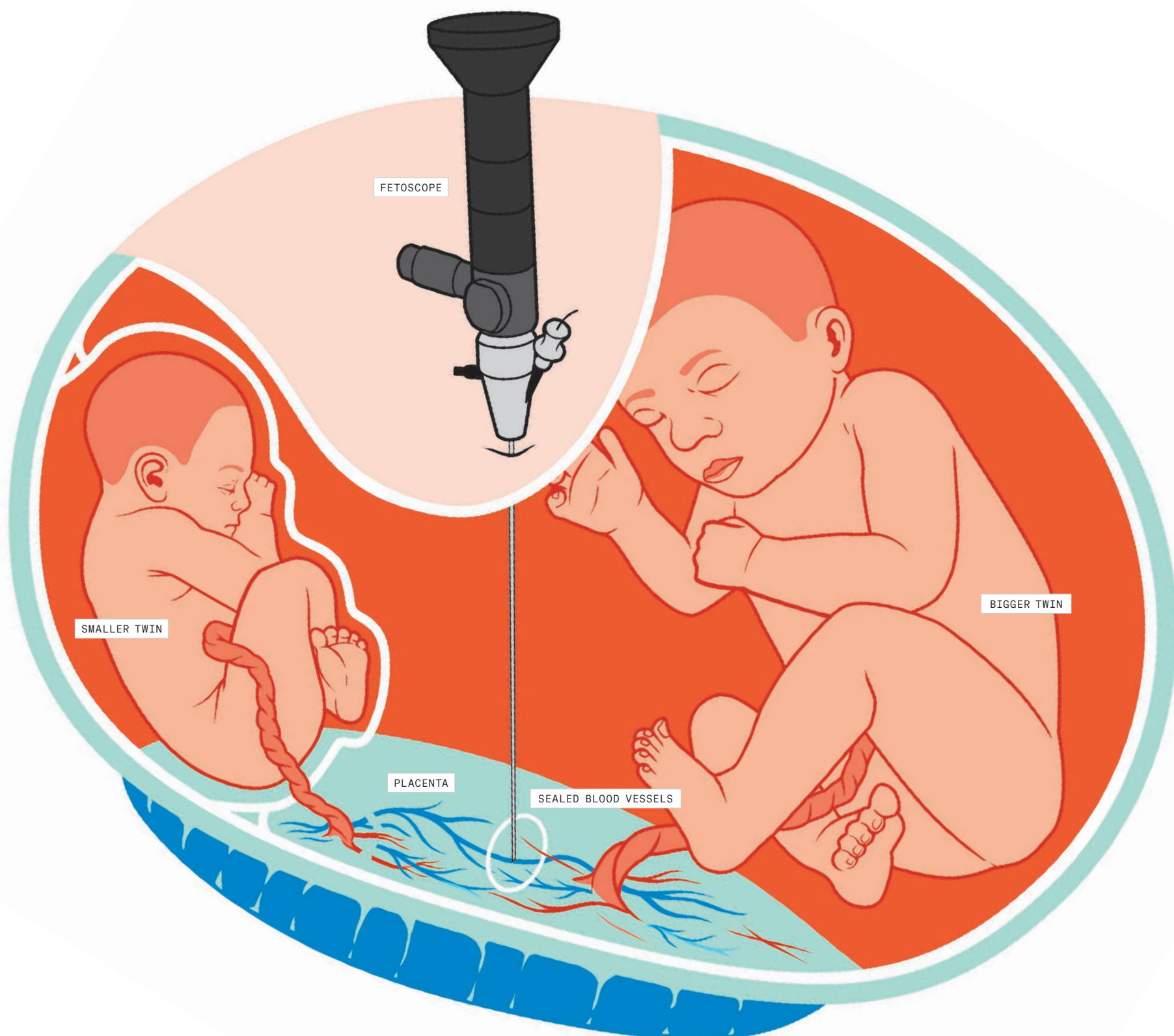
Dr. Chavez laid out several options, but for the Giannones, there was really only one. “We wanted to save both babies,” says Nicole. On May 29, Dr. Chavez set out to correct the imbalance with a procedure he has helped to refine: laser photocoagulation. This minimally invasive surgery, performed in utero, can not only extend a pregnancy to a safer stage for delivery, but also preserve pregnancies that might not otherwise survive—all while minimizing risk to the mother. “Ten years ago, a safe surgical option didn’t exist on Long Island,” notes Dr. Chavez. “Now, I’m no longer just a bystander.”

With Nicole anesthetized but awake so that she could hold her breath at critical moments, Dr. Chavez made a small incision just above her navel and, guided by ultrasound, inserted a pencil-thin fiber-optic scope into the amniotic cavity of the overnourished twin. Examining the blood vessels on the surface of the placenta, he identified the abnormal vascular connections, then sealed them off with a laser, restoring balanced circulation.

The procedure went smoothly, and the blood flow equalized, but several weeks later, another imbalance occurred. When large vessels are sealed off, smaller ones try to compensate. In this case, some of them overcompensated. So on July 6, at 26 weeks, Dr. Chavez performed another laser procedure to once again balance out the circu-



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lation between the fetuses. “At 26 weeks, at least there was a chance that if delivery became necessary, the babies could survive,” he says.

Nicole was admitted to NYU Winthrop for a cesarean delivery six weeks later. Her sons, Christian and Nicholas, weighed 3 pounds 10 ounces and 2 pounds 14 ounces, respectively. Nicole doesn’t remember hearing their first cries, but she does recall holding the babies for the first time. “Are these really mine?” she said. Christian stayed in the neonatal intensive care unit for 21 days; Nicholas went home 7 days later. Now nearly a year and a half old, they’re meeting all their mile-

stones and are expected to be the same size by age two.

“The probability was that we were not going to have these children,” says Matthew Giannone, “so we feel blessed.” Nicole adds that her gratitude to Dr. Chavez is hard to put into words. “He is the most amazing doctor,” she says. “He made us feel comfortable putting the lives of our babies in his hands.”

At the twins’ first birthday party, Dr. Chavez was the guest of honor. “I needed to celebrate this very special moment with the boys,” he says. “I was a part of their journey, and I got to meet them—twice—before they were even born.”

TREATING TWINS IN TROUBLE

The majority of identical twins share a placenta. It’s a cozy configuration that can sometimes turn deadly when blood flows unevenly between the fetuses. This imbalance, called twin-to-twin transfusion syndrome, occurs in about 15% of cases. Martin Chavez, MD, director of maternal and fetal medicine at NYU Winthrop, has helped refine a minimally invasive surgical technique to correct this once untreatable condition in utero. Guided by ultrasound and a thin fiber-optic scope inserted through a tiny incision in the mother’s abdomen, he uses a laser to close off some placental blood vessels, restoring balanced circulation. The procedure, available at NYU Winthrop and NYU Langone Health’s main campus in Manhattan, has enabled high-risk pregnancies to progress to later stages, giving twins a better chance to survive.



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New Year, New Newsletter

Welcome to a new decade—and a new look and name for *News & Views*, now *NYU Langone Health News*.

This fully reimagined newsletter features a modern, vibrant design that reflects a modern, vibrant institution. NYU Langone Health has undergone a tremendous transformation in the past decade. With the new Helen L. and Martin S. Kimmel Pavilion (left), NYU Langone Hospital–Brooklyn in southwest Brooklyn, NYU Winthrop Hospital on Long Island, and more than 240 outpatient locations throughout the tristate area, our family now counts over 40,000 employees, up from 9,000 in 2008. And as you will see on these pages, our collective commitment to serve, teach and discover has never been stronger.

We hope you enjoy this inaugural edition. Thank you for reading and for being a part of NYU Langone Health's growing community.

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