

News & Views

WHERE PATIENT CARE,
SCIENTIFIC RESEARCH, AND
MEDICAL EDUCATION MEET

NYU Langone
Ranks #1 for
Quality and Safety

PAGE **4**

How to Stop
Coronary Artery
Disease

PAGE **6**

When Diet and
Exercise Aren't
Enough

PAGE **8**

FALL 2015



A New Center Treats the Most Complex Spine Cases

Marshaling the Expertise of Two Distinguished Departments, Neurosurgery and Orthopaedic Surgery, the Spine Center Represents Collaboration at Its Best

Adam White, a 20-year-old, 265-pound former lineman for his high school football team, could live with the discomfort of Scheuermann's kyphosis, a rare disease that causes a severe curvature of the thoracic spine, but he didn't want to any longer. "It made me look like Quasimodo," he says. When he began to experience tingling and numbness in his hands and feet that lasted for hours, the once cheerful college sophomore told his mother, Carolyn: "We need to see a doctor." The Whites, who live in Orefield, Pennsylvania, visited several top specialists in the Lehigh Valley and nearby Philadelphia. After reviewing images of Adam's spine, one neurosurgeon said simply: "I can't help you."

The search for a solution led to the Spine Center at NYU Langone Medical Center. The center combines the expertise of two world-class departments, neurosurgery and orthopaedic surgery, with the integral support of Rusk Rehabilitation's physiatry team, all three of which are ranked among the top 10 programs in their fields nationwide by *U.S. News & World Report's* Best Hospitals Rankings. Working closely with neurologists, radiologists, anesthesiologists, and other specialists, the center's 15 surgeons evaluate more than 18,000 patients and perform some 2,800 surgeries and 3,000 interventional procedures annually. "Our philosophy of care emphasizes comprehensive evaluation, conservative treatment that delays or eliminates the need for surgery, and when possible, minimally invasive techniques," explains the center's codirector, Anthony Frempong-Boadu, MD, director of the Division of Spinal Neurosurgery in the Department of Neurosurgery.

Adam's case was unusually complex. Not only was his thoracic spine badly deformed, but he also suffered from another rare condition, known



Photographer: Joshua Bright

Dr. Anthony Frempong-Boadu (top and center), director of the Division of Spinal Neurosurgery in the Department of Neurosurgery, and Dr. Thomas Errico (bottom), director of the Division of Spine Surgery in the Department of Orthopaedic Surgery, are codirectors of NYU Langone's new Spine Center, which evaluates more than 18,000 patients annually.

continued from page 1

A New Center Treats the Most Complex Spine Cases

as a spinal-cord hernia, in which the spinal cord pushes out of a hole in its protective sleeve. At NYU Langone, Adam and his father, Ed, met with Noel Perin, MD, director of minimally invasive spine surgery, who has extensive experience treating this condition.

Yet even Dr. Perin had never encountered a case quite like Adam's. "You have two of the rarest congenital spinal conditions in the world," he told Adam. "I've never seen both in a single patient." After consulting his colleagues at the Spine Center, Dr. Perin felt confident that he and his team could help the young man. "This is what you have, this is what's causing it, and this is how we're going

to fix it," he told Adam, who was reassured by Dr. Perin's low-key, forthright manner.

The neurosurgeon outlined three phases of surgery, each lasting several hours, that he would perform in collaboration with Thomas Errico, MD, director of the Division of Spine Surgery in the Department of Orthopaedic Surgery, in a single, all-day procedure. Due to the length and depth of the incision required and the amount of space needed to accommodate the spinal hardware, a plastic surgeon, Michael Margiotta, MD, was also brought in.

Adam's 13-hour operation, performed on May 20, went exactly as planned. First, Dr.

Perin repaired the spinal-cord hernia. Then, to fix the curvature in Adam's spine, Dr. Errico fused together 12 of his vertebrae, using 24 screws and two foot-long titanium rods.

"Each specialty brings a little extra to the table, particularly in complex cases like Adam's."

—Thomas Errico, MD, codirector of the Spine Center and director of the Division of Spine Surgery in the Department of Orthopaedic Surgery

"Traditionally, orthopaedic spine surgeons dealt with bone issues, and spinal neurosurgeons with neural structures," explains Dr. Errico, who codirects the Spine Center with Dr. Frempong-Boadu. "But over the last 20 years or so, these two specialties have become less distinct and more collaborative. Each specialty brings a little extra to the table, particularly in complex cases like Adam's. This leads to superior results." The seamless integration of these two specialties is particularly valuable for complex cases, adds Dr. Errico, because it enables NYU Langone to match the patient to just the right surgeon or team of surgeons.

Upon awakening in the postanesthesia care unit, the first thing Adam noticed was that the tingling was gone. "No numbness, no pain—just like that," he recalls. Once he was able to walk, he was thrilled by something else: gaining two inches in height, which brought him to 5'9". ■

CONTACT: To find a specialist who treats spinal conditions, call 844-698-2224, or visit nyulangone.org/spinecenter.



Adam White (above) is less flexible but enjoys golf and other activities. Surgeons fused 12 of White's vertebrae, using screws and rods (see X-ray).

Photographer: Devon Groves

Bon Appetit!

As Tisch Café Makes Its Debut, Patrons Find Something Appetizing for Every Palate



Michael Rodriguez, security guard



Katherine Ozuna, Building Services attendant



Maurice Singleton, RN, senior staff nurse



Dr. Vasishta Tatapudi, instructor in medicine

Pappardelle pasta with braised short ribs and arugula . . . buckwheat ricotta pancakes . . . California rolls with edamame and pickled ginger. Hospital food never looked, smelled, or tasted so good. Tisch Café, NYU Langone Medical Center’s new cafeteria, offers a menu inspired by the creative cuisine of many of New York City’s trendiest restaurants.

Tisch Café is open daily from 6:00 a.m. to midnight. The entrance, off the first-floor corridor, will eventually be accessible from both Tisch Hospital and the new Helen L. and Martin S. Kimmel Pavilion when it opens in early

2018. With a larger dining room, the café more than doubles the square footage of the former cafeteria, providing seating for 270.

“As with every project,” notes Vicki Match Suna, AIA, senior vice president and vice dean for real estate development and facilities, “an enormous amount of consideration and attention to detail has gone in to designing and building the space. From strategies to address patron flow and seating needs, to aesthetics such as finishes and lighting that offer a pleasing ambience, everything has been selected with the utmost care to create a café our whole community can enjoy.” ■

Village Pediatric Cardiology Joins the NYU Langone Family

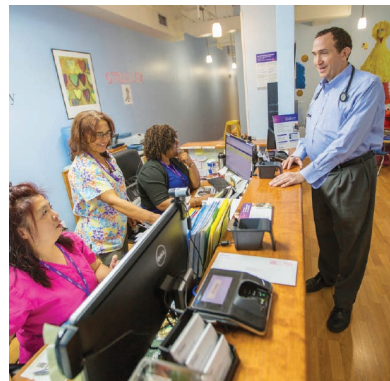
With Its Personalized Care and Access to the Medical Center’s Vast Resources, This Specialty Practice Offers the Best of Both Worlds

In April, pediatric cardiologists David Brick, MD, and Matthew Martinez, MD, became the newest members of NYU Langone Medical Center’s ever-growing network of ambulatory care centers. The physicians’ highly regarded specialty practice on West 14th Street, now called NYU Langone Village Pediatric Cardiology, provides comprehensive care, using state-of-the-art equipment and the most advanced techniques to diagnose

and treat all forms of pediatric and fetal heart disease.

Supported by the full resources of the Medical Center, including a sophisticated health information system, Village Pediatric Cardiology can ensure a high level of coordination for patient care.

“Drs. Brick and Martinez offer both the high standard of care and the warmth and compassion we pride ourselves on at NYU Langone, in a



Dr. David Brick, medical director of Village Pediatric Cardiology, with his office staff

neighborhood convenient to where patients live,” says Catherine Manno, MD, the Pat and John Rosenwald Professor of Pediatrics and chair of the Department of Pediatrics. “We’re thrilled to welcome them to our family of ambulatory care centers.” ■

CONTACT: NYU Langone Village Pediatric Cardiology, 154 West 14th Street, fourth floor, 212-604-7880 nyulangone.org/villagepedcardiology.

NYU Langone Scores #1 in Quality and Safety for Third Consecutive Year

Dr. Robert Press, the Newly Appointed Chief of Hospital Operations, Discusses NYU Langone's Latest Recognition for Quality and Safety and the Legacy of His Predecessor, the Late Dr. Bernard Birnbaum

"It's all about the patient," Bernard Birnbaum, MD, NYU Langone Medical Center's former senior vice president and chief of hospital operations, often said to employees to remind them that "patient-centered care" is not merely a motto, but a credo. In September, patients who put their faith in NYU Langone were reassured that their confidence in this institution is well placed. For the third consecutive year, NYU Langone scored number one for overall patient quality and safety among 102 leading academic medical centers nationwide that were included in the University HealthSystem Consortium (UHC) 2015 Quality and Accountability Study. The award for top-performing academic medical centers has been renamed the Bernard A. Birnbaum, MD, Quality Leadership Award to pay tribute to Dr. Birnbaum (*see box*), a UHC board member, who passed away on September 14, 2015, after a long



illness. His successor, Robert Press, MD, PhD, reflects on the award and the legacy of the man it honors.

As the former chief medical officer in charge of quality and safety measures, what makes you most proud of this award?

Dr. Robert Press: It confirms that we're not only focusing on quality and safety, but improving our performance. Each year, the bar gets higher. If you earn top honors in successive

years, it doesn't reflect maintenance of excellence, but a higher level of achievement. This year, for example, we improved in patient satisfaction. We're not trying to be the biggest medical center in the country. We want to be the best.

To what do you attribute our success?

RP: It comes from the top down and the bottom up. If you really want to be successful, you need to engage the entire team of caregivers and staff—everyone. Directly or indirectly, we are all providers of quality.

Why did the UHC decide to name the award after Dr. Birnbaum?

RP: Dr. Birnbaum possessed great interpersonal skill and a fierce dedication to quality and safety. It's a fitting tribute, and one Bernie truly deserved because he epitomized the commitment to quality and safety that is reflected in the award.

Of all the initiatives that have been implemented to improve patient satisfaction, which ones have been most successful?

RP: Bernie liked to say that hope is not a strategy. To improve performance, he insisted, you need a plan. One of our most successful initiatives is hourly rounding by nurses, where there's a regular check-in with patients to make sure that their needs are being addressed and that there's no significant change in their status. It's an extremely important intervention.

Who were your other mentors?

RP: My father, who practiced as an internist here and in Brooklyn for 62 years, until he was 92. Now he's 100. He was the best internist I've known, and his patients all loved him. He taught me the art of medicine: to address the whole patient, to treat the patient as a person, and to deliver the highest-quality care. ■

In Memoriam: Dr. Bernard Birnbaum, an Ardent Advocate for Quality and Safety

The late Dr. Bernard Birnbaum's passion for quality and safety in healthcare had deeply personal roots. Dismayed by the substandard care his mother received before she died of cancer, he decided to become a physician. He earned his MD from NYU School of Medicine, did his medicine internship at New York Hospital, and completed his radiology residency and abdominal imaging fellowship at NYU Langone. In 2007, he was appointed senior vice president, vice dean, and chief of hospital operations.

Dr. Birnbaum's tenure was distinguished by numerous achievements. He brought all patient-focused programs under one umbrella; he set the strategic direction for widespread reforms



to enhance quality and safety; he directed the implementation of the Medical Center's integrated electronic health records system; and he led the Incident Command Team during Hurricane Sandy, ensuring that all patients were safely discharged or transferred to other institutions.

"Of everything we achieved together, the UHC award was what Bernie took the most pride in," notes Robert I. Grossman, MD, the Saul J. Farber Dean and CEO of NYU Langone. "He knew UHC was an organization at the pinnacle of measuring quality and safety—based not on reputation, but on data. It's an amazing tribute to Bernie and his entire team."

The Best Hospital Stay Ever

Throughout His Medical Care, a Young Patient Finds Something Unexpected—Fun

At the age of six, Joshua Rogers has had more medical procedures than most people endure in a lifetime. Born at 23 weeks of gestation and weighing only one pound, Joshua, whose twin sister died hours after birth, was given little chance of survival. If he lived, doctors told his parents, Julie and Daniel, he was likely to have severe physical and cognitive disabilities. But he defied the odds. “He’s just a champion,” says his mom. Smart, energetic, and irrepressibly cheerful, Joshua recently started kindergarten, though he’s been plagued by serious ailments—from lung problems to epilepsy—resulting from his premature birth. In July, when his seizures seemed to be growing worse, his parents took him for neurological tests at NYU Langone Medical Center.

“We’ve been in a half-dozen hospitals,” explains Julie, “so Joshua has gotten used to the standard

routine.” This time, however, he got several surprises. One was a matter of chance: Not far from the window of his room in Tisch Hospital, two electricians were laying conduit on the roof of an adjacent building. For Joshua, who’s fascinated by all things mechanical, it was like having a front-row seat at a rock concert. He waved, and the workmen waved back. As the day passed, the exchange was repeated frequently. Seeing the boy in his white mesh cap, studded with electrodes to record his brain waves, one of the workmen, Doug DiMeo, thought of his own young son. “I’d love to get that kid a gift,” he said to his partner. Allan Jackier knew just the thing. During their lunch hour the next day, they picked up a brand-new hard hat and safety vest at their foreman’s office. Then they went searching for their new friend.

The workmen explained their mission to a security guard, who relayed their request to visit the boy



During their visit with inpatient Joshua Rogers, Doug DiMeo (left) and Allan Jackier (right) brought their new friend a brand-new safety vest and hardhat.

Helping Kids Be Kids

Many of the activities Joshua Rogers and his mom, Julie, so enjoyed and appreciated during their hospital stay were sponsored by the Sala Institute for Child and Family Centered Care, part of NYU Langone’s Hassenfeld Children’s Hospital. The institute provides a host of support services to make a child’s clinical experience safer and more comfortable. “We’ve taken our amazing personnel, enhanced their resources, and woven their services into one piece of fabric,” says Fiona Levy, MD, vice chair of the Department of Pediatrics and Sala’s executive director. Sala sponsors numerous programs designed to enhance comfort and well-being, foster resilience, and encourage expression, including nutritional counseling, recreational and play therapy, integrative health, social work, psychological and psychiatric support, pain management, and palliative care.

to the nurse manager. When the nurse manager informed Joshua’s mother that the workmen were out in the hallway, Julie exclaimed, “Joshua! Those construction workers came to see you. Isn’t that amazing?” The boy’s response said it all: “Wow!”

Once inside Joshua’s room, DiMeo and Jackier fitted Joshua with the helmet and vest. “Maybe you can be our apprentice someday,” DiMeo told him. “Or our boss.” Joshua thanked them as Julie choked back tears. “I couldn’t believe they would take so much trouble to show kindness to a little boy,” she recalls. After Julie snapped a cellphone photo, the men went back to work, and Joshua—now dressed like his buddies—went back to waving. “He did a lot more

for our morale than we could have done for his,” says Jackier.

But that wasn’t the only thrill Joshua experienced during his four-day stay. There was the video-game player in his room. The food (especially the pancakes), which he liked better than any hospital fare he’d ever eaten. The clown. The horticulture therapist. And when Joshua needed an IV, the music therapist distracted him with his favorite song, “God Bless America.”

“Joshua felt like he was at camp,” says Julie. Just before discharge, she received the welcome news that her son’s seizures were now under control and his prognosis was a good one. “Seeing your child light up in a hospital? I didn’t think that was possible.” ■

Four Strategies for Preventing Coronary Artery Disease

Top Cardiologists Agree: to Help Prevent a Heart Attack, Stop the Buildup of Plaque in the Blood Vessels Feeding the Heart

Each year, some 735,000 Americans suffer a heart attack, often with little warning. About one-third of these people die, and those who survive often have permanently weakened heart muscles. Although heart attacks may seem to strike out of the blue, they are most often the result of coronary artery disease, or CAD, a gradual, toxic process of plaque accumulation in arteries, occurring over decades. The good news is that most heart attacks are preventable with the right interventions and treatments, according to cardiologists at the Center for the Prevention of Cardiovascular Disease within the Leon H. Charney Division of Cardiology at NYU Langone Medical Center.

The center cares for people who are at high risk for developing cardiovascular disease, as well as those who have already experienced a heart attack or stroke, or have had heart surgery, vascular surgery, or angioplasty. Its team includes some of NYU Langone's leading cardiologists. "We've achieved excellent success using state-of-the-art diagnosis and medications along with lifestyle modifications," says the center's director, Edward Fisher, MD, PhD, the Leon H. Charney Professor of Cardiovascular Medicine, who has conducted pioneering research on the biology of cardiovascular disease. "We've staved off heart attacks in most of the patients we've treated."

These four strategies are key to their success.

1 Assess Risk

The buildup of a waxy substance containing cholesterol that forms plaques in the heart's three large coronary arteries—coronary artery disease—sets the stage for a potential heart attack. Even small plaques may rupture, causing a blood clot that blocks blood flow to your heart, which is how most heart attacks occur. Unless the blockage is treated immediately, the result can be permanent damage to the heart or even death. The key to preventing a heart attack is to halt plaque formation by bringing risk factors for CAD under control. "Our center spends a lot of time assessing risk," explains cardiologist Arthur Schwartzbard, MD. Traditional risk factors include high blood pressure; high LDL, or "bad" cholesterol; low HDL, or "good" cholesterol; diabetes; smoking; and age. The more risk factors you have, the higher your risk for CAD. "Each risk factor has an additive effect on the others," says Howard Weintraub, MD, the center's co-clinical director.

2 Get the Right Tests

Most people get basic lipid, blood pressure, and glucose screens with their annual physical. Dr. Weintraub suggests an additional screen for the total number of LDL particles, which may be particularly useful in patients with higher levels of triglycerides. He also advises testing for lipoprotein LP(a), a particle that adds significantly to CAD risk and is not routinely measured. The experts stress the importance of addressing these risk factors earlier and more aggressively if you have a parent or sibling who developed CAD before age 50.

3 Address Every Risk Factor

Once a patient's risk status is fully assessed, the team presses on all fronts. As needed, they'll use blood pressure medication to maintain healthy blood pressure, and prescribe diabetes medi-

cations plus weight loss and exercise to keep blood glucose in normal ranges. They may also prescribe antiplatelet medications (including low-dose aspirin) to prevent blood clots.

The center's most intensive focus, however, is on lowering LDL cholesterol—the primary source of arterial plaque lipid. Your body makes most of the LDL in your bloodstream. This production can be reduced by cutting intake of saturated animal fats—which the body eventually turns into LDL cholesterol—as well as increasing dietary fiber and taking medications that spur the removal of LDL from the blood.

The first-line treatment is usually a cholesterol-lowering statin medication. For people who have difficulty tolerating statins, the center has pioneered an approach in which long-acting statins are taken every two or three days. For patients who can't tolerate statins at all, the center's director of

integrative medicine, cardiologist Dennis Goodman, MD, offers natural alternatives.

4 Encourage a Healthy Diet and Exercise

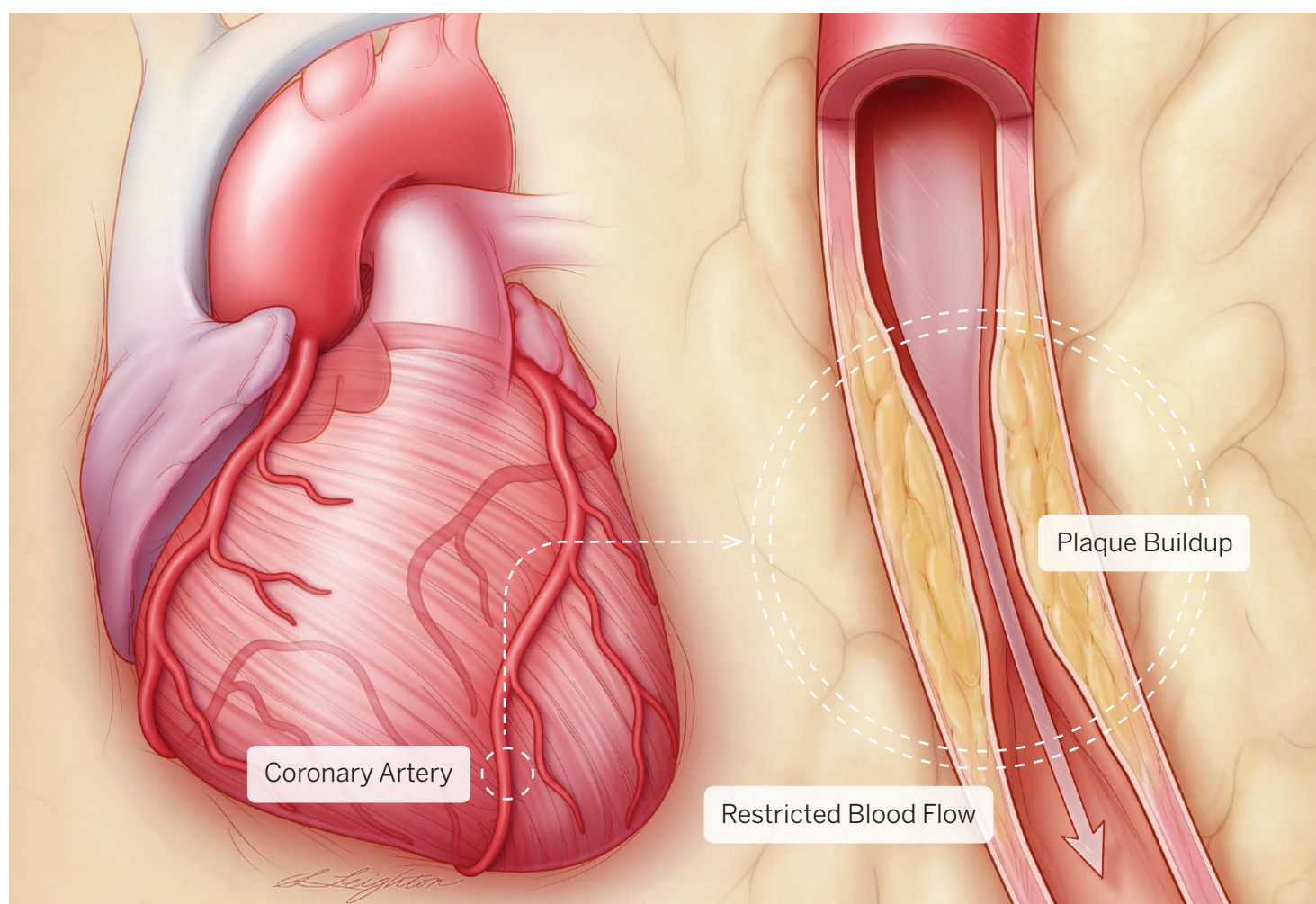
The center's cardiologists are not only experts at medical management of CAD, but also passionate proponents of a healthy diet and daily exercise. "Research shows that the best preven-

tive diets include a high intake of vegetables, fruits, whole grains, and fiber, and low intake of animal and dairy fat, sugar, and processed carbohydrates," explains cardiologist Eugenia Gianos, MD, the center's co-clinical director. These include the Mediterranean diet, vegan diets, and the DASH diet, short for Dietary Approaches to Stop Hypertension.

A recent large-population study in Spain found that the Mediterranean diet lowered risk of

coronary events by 30%—as much as medications. Evidence also shows that just 30 minutes of aerobic exercise daily significantly reduces risk. "Any activity that raises your heart rate will work," explains Dr. Fisher, "including brisk walking." ■

CONTACT: To find out if you are at risk or to find a preventive cardiologist, call 212-263-0855 or visit nyulangone.org/cvdprevention.



The buildup of a waxy substance containing cholesterol that forms plaques in the heart's three large coronary arteries sets the stage for a potential heart attack.

Illustrator: Scott Leighton

WHAT IS CORONARY ARTERY DISEASE?

Your heart pumps 3,000 gallons of oxygen-rich blood throughout your body on a daily basis. To accomplish this, the heart has its own dedicated blood supply, delivered through three large coronary arteries. In many people, the walls of these arteries have developed fatty streaks by early adulthood—the result of diet, genetics, and other factors. In time, these streaks can turn into plaque deposits, consisting of fat droplets (cholesterol and other lipids) and other chemicals. When it occurs in the heart, this plaque buildup is called coronary artery disease, or CAD. As CAD progresses, it can cause total or near-total blockages in one or more coronary arteries—sometimes acutely, such as when a plaque ruptures—requiring angioplasty and stenting or a coronary bypass to restore full blood flow to the heart.

When Diet and Exercise Aren't Enough

NYU Langone's Comprehensive Approach to Weight Loss Delivers Results

Some 75% of men and 67% of women in the US are overweight or obese. It's no wonder, given the numerous factors working against us. "We're genetically programmed to defend against weight loss," explains Steven Lamm, MD, medical director of NYU Langone Medical Center's Preston Robert Tisch Center for Men's Health. "Many people have inherited genes that promote being overweight. On top of that, cheap, calorie-dense, but nutrient-deficient food is readily available to everyone. Stress, sedentary lifestyles, and sleep problems add to the risk. It's a perfect storm for weight gain."

Dr. Lamm is part of a multidisciplinary team of experts at NYU Langone who treat obesity not as a side effect of unhealthy lifestyle choices but rather as a complex chronic disease requiring personalized care and long-term oversight. "Overweight people lose weight all the time," notes Dr. Lamm, "but they rarely achieve an optimal weight, and 95% of the time, they regain the weight they've lost."

Diet and exercise are necessary components, but for many, they're not enough. NYU Langone's comprehensive approach offers a medically proven alternative. The idea is to target weight loss from every angle, offering a full spectrum of treatments that includes nutritional counseling, behavioral therapy, medical management, and bariatric surgery.

Here's how NYU Langone experts are helping patients lose weight and keep it off for good.

It's about Managing Weight, the Experts Emphasize, Not Just Losing It



Holly Lofton, MD, an internist board-certified in obesity medicine, is director of NYU Langone's Medical Weight Management Program (see box on page 9). "I'm your physician for life," she tells her patients. "That's why we call it weight management, not weight loss."

Dr. Lofton's most effective approach is a medically supervised meal replacement plan she describes as "safe, healthy, and tasty." It limits daily intake to about 1,100 calories, including very few carbohydrates and fats. "The balance of protein and carbs makes you feel full in a way regular food never could," she explains. This approach works by depleting the body's store of carbohydrates, forcing it to burn fat while naturally suppressing appetite. The result is a steady weight loss of three to five pounds per week. In a field where failure is the norm, Dr. Lofton can claim remarkable success. Some 85% of her patients hit their target weight without surgery.

The idea is to target weight loss from every angle, offering a full spectrum of treatments that includes nutritional counseling, behavioral therapy, medical management, and bariatric surgery.

Pinpointing the Root of the Problem



Sometimes, simply removing a barrier, such as not being able to sleep well, is enough to kick-start the weight loss process, explains Dr. Lamm. A shift worker or someone who has to travel often for business may have circadian dysregulation. This disruption of

the sleep-wake cycle, he explains, often leads to weight gain. "In these cases, it's not about a low-carb diet. You've got to fix the sleep problem," he says.

Psychological issues also play a major role, notes psychiatrist Diane Klein, MD, director of NYU Langone's Eating Disorders Program. "This can include negative self-talk, where people expect themselves to fail. They may have tried a number of diets and not succeeded. Other factors, such as stress or emotional eating, can also make it hard to stick to a plan." Dr. Klein emphasizes that cognitive behavioral therapy can be very effective in addressing negative patterns of thinking.

Considering Minimally Invasive Surgery for Substantial Weight Loss



Bariatric surgical procedures can help prevent, slow the progression of, or even reverse certain obesity-related conditions by restricting the size of the stomach. Certified as a Center of Excellence by the American College of Surgeons and the American Society for Metabolic

and Bariatric Surgery, NYU Langone's Medical Weight Management Program performs some 1,000 of these procedures annually. Christine Ren-Fielding, MD, director of the Division of Bariatric Surgery, estimates that about 80% of these patients report long-term success. Her husband, George Fielding, MD, the J. Ira and Nicki Harris Family Professor of Surgery and Bariatric Medicine, pioneered the laparoscopic technique now used to place an adjustable gastric band around the upper portion of the stomach. NYU Langone is also among the first training centers in the country to teach the newly FDA-approved non-invasive intragastric balloon procedure, in which a soft silicone balloon is inserted endoscopically into the stomach. The balloon is filled with saline solution to make you feel full.

Where You Live Matters



Social scientists increasingly point to the "food environment" as a factor in America's obesity epidemic. In neighborhoods with low-income levels, healthful food is actually hard to find, while junk-food options are plentiful. To understand how such variables affect

a community's residents, health economist Brian Elbel, PhD, a

Tips for Tipping the Scale in Your Favor

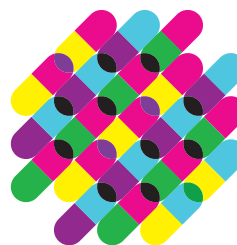
Dr. Holly Lofton's four simple weight loss strategies:

1. Eat slowly.
2. Avoid large meals at night.
3. Drink lots of water throughout the day.
4. Walk at least 10,000 steps each day, wearing a pedometer to ensure that you do.

member of NYU Langone's Department of Population Health, is leading an unprecedented study of New York City's 1.1 million public school students. Using data provided by the city and state, his team is tracing changes in each student's body mass index, or BMI, year by year, and relating those statistics to information about the types of restaurants and food markets near the child's home and school. "Cities have begun taking measures meant to fight obesity, such as restricting fast-food outlets, without knowing which policies are effective," explains Dr. Elbel. "Our research will help determine what really works."

Minimizing Antibiotic Exposure

Recent research indicates that bacteria lining the gastroin-



testinal tract may play an important role in maintaining a healthy weight. This population of microorganisms, known as the gut microbiome, breaks down many proteins, carbohydrates, and fats that we would otherwise be unable to process. Gastroenterologist

Ilseung Cho, MD, a member of NYU Langone's Department of Medicine, led a study showing that mice given low doses of antibiotics developed 10 to 15% more fat than a control group. Their modified microbiomes, the study showed, were allowing them to absorb more calories. These results, says Dr. Cho, not only make a case for eating antibiotic-free meat, but point to potential treatments for obesity. "The hope," he explains, "is that we might be able to improve someone's metabolism by altering their microbiome."

CONTACT: To find a weight management specialist, call NYU Langone's Physician Referral Service at 888-769-8633, or visit nyulangone.org/obesity.



Dr. Holly Lofton:

An Expert on Obesity Who's Been in Her Patients' Shoes

"I grew up in the South, where there was too much high-fat and fried food. There are so many good restaurants in Atlanta, and food was how we celebrated. I was eating adult-size portions and lots of snacks. When I was in fifth grade, my mother took me to the pediatrician. 'Mrs. Lofton,' he said, 'her weight is off the charts. We need to do something about this.'

"I was not aware of the conversation, but I noticed that my mom started taking me skating every weekend. It was fun. My parents were very smart, educated, and loving. They had me try gymnastics, ballet, karate, swimming, and different types of dance classes. I liked being more active.

"I also went to my mother's Weight Watchers meetings with her. We started to learn about good nutrition and what we should order at restaurants. She'd say, 'Let's get a tuna sandwich instead of a burger and fries.' It was all done in a positive way, and between sixth and seventh grade, I lost the extra weight. I don't know how much, but I can tell you that I tried out for cheerleading, and when my uniform arrived three months later, it was way too big.

"I was able to maintain my weight loss, and exercise is key. It became a part of my lifestyle, and it still is. I'm always in the gym or biking or running. When patients say, 'How are we going to do this?' believe me, I empathize."

A Device That Helps People with Paraplegia Get Back on Their Own Two Feet

Thanks to a Clinical Trial at Rusk Rehabilitation, Patients with a Weakened or Paralyzed Lower Body Are Learning to Do the Seemingly Impossible: Walk Again



Flanked by Michael Juszcak, research coordinator at Rusk Rehabilitation (far left); Maria Stelmach, DPT, a physical therapist (second from right); and Dr. Tamara Bushnik, Rusk's director of research (far right), Tom Ball, whose spine was severed in a construction accident, learns to use the Indego robotic exoskeleton at NYU Langone's Ambulatory Care Center. *Photographer: Joshua Bright*

Since becoming paralyzed from the waist down in 2009, when his spine was severed in a construction accident, Tom Ball has worn a rubber bracelet that reads: "Never give up." The former ironworker, now 64, has undergone extensive rehabilitation at NYU Langone Medical Center's Rusk Rehabilitation. Ball took up wheelchair softball and learned to surf with a modified board. But he cherished one hope that, despite his resilience, seemed elusive, if not impossible: getting around on his own two feet.

Today, Ball is part of a clinical trial at NYU Langone that may someday make that happen. Rusk is one of five research centers in the country that are examining the safety and efficacy of the Indego robotic exoskeleton, which enables patients with a paralyzed or weakened lower body to walk. A total of 40 people will be part of this study. Manufactured by the Parker Hannifin Corporation, the Indego uses motorized braces, controlled by an iPod touch, to support and move the legs. Crutches or a walker provide extra stability. "The potential benefits go beyond mobility," explains

Rusk Rehabilitation is one of five research centers in the country that are examining the safety and efficacy of the Indego robotic exoskeleton, which enables patients with a paralyzed or weakened lower body to walk.

Tamara Bushnik, PhD, Rusk's director of research. "Sitting in a wheelchair all day leads to health problems. We're looking at what this device can do for bone density, circulation, pain, and bladder and bowel function."

Ball is one of four patients from Rusk enrolled in the study, which will help the FDA determine whether the Indego should be approved for use in rehabilitation facilities. When he strapped on the exoskeleton for the first time, he recalls, "it felt awesome just to stand and look people in the eye." Soon, Ball was walking hundreds of steps a day around NYU Langone's Ambulatory Care Center. He even took a short stroll down the block.

A handful of other exoskeletons have recently reached the hospital market, but only one (ReWalk 6.0™) has been FDA approved for personal use. At 27 pounds, the Indego is lighter and simpler to operate than other models. Eventually, it may become available privately to individuals. If that happens, Ball, the father of two children, will be among the first in line. "My goal," he says, "is to walk my daughter down the aisle at her wedding." ■

Technology Adapted from the Military Aids Precision-Guided Neurosurgery

By Being Able to “Walk around a Tumor,” Surgeons Can Plan the Safest Approach

Flight-simulation technology used by military pilots to rehearse complex flight maneuvers is now helping neurosurgeons at NYU Langone Medical Center to practice critical missions of their own: removing brain tumors and repairing aneurysms. The adapted technology, called the SuRgical Planner™, or SRP, combines MRI and CT scans to create detailed 3-D computer models of a patient’s brain. Using a joystick, surgeons manipulate the computer model on-screen so that they can see exactly where a tumor sits in relation to surrounding arteries, veins,

and brain structures before they operate.

The developers, a neurosurgeon and a pair of Israeli military engineers, paid special attention to the simulator’s realism. Tissue glistens in the light and responds with lifelike movement to virtual surgical tools. “The SRP lets us walk around a tumor, in a sense, and see what’s in the way so that we can plan the safest approach for surgical resection,” explains John G. Golfinos, MD, chair of the Department of Neurosurgery.

Since its debut at NYU Langone this year, the FDA-approved surgical simulator has helped

neurosurgeons rehearse for dozens of challenging cases, including ones in which tumors are nestled at the base of the skull, dangerously close to blood vessels, nerves, and brain structures. “Before, we had to do all the visualizing in our minds,” says Dr. Golfinos. “That’s not the same thing as a 3-D model, no matter how good you are. Neurosurgeons always spend extra time before every complicated case with the MRI and CT scans, looking for small but critical details. With the SRP, it’s almost as if you’re inside the MRI yourself.” ■

Hearing Aids for the Internet Age

Sleek and Sophisticated, the Newest Models Enhance Not Only Sound, but Quality of Life

An estimated 28 million Americans have a significant hearing loss. Yet, among people age 70 or over who could benefit from a hearing aid, less than 30% wear one, and for younger adults, the figure is only 16%. In part, that’s because many regard the devices as unsightly and difficult to use. The latest models, however, are far sleeker and more sophisticated than their predecessors. If you have a hearing impairment, specialists at NYU Langone Medical Center can determine whether one of these devices is right for you. Here are some features that set the new breed apart.

Digital Intelligence

Today’s hearing aids adapt to the auditory environment. “If you’re listening to Beethoven at home,” explains William Shapiro, AuD, the Lester S. Miller, Jr., and Kathleen V.



Paired with smart phones, new hearing aids allow users to customize the sound profile.

Miller Clinical Assistant Professor of Hearing Health in the Department of Otolaryngology, “the device automatically amplifies different tones than if you’re attending a lecture in an auditorium. If a bus roars by, a microphone adjusts so that the sound you want to hear remains in focus.”

Smartphone Compatibility

Many new hearing aids are designed to pair with iPhones or Android devices, enabling calls, music, and other audio to be streamed wirelessly to both ears, eliminating the variables of distance and background noise. A phone can also function as a remote control,

allowing the user to customize the sound profile (boosting the bass or treble, for instance) with a tap on the screen.

Inconspicuous Design

An increasingly popular option is the open-fit hearing aid, a small behind-the-ear unit connected by a wire or narrow tube to a tiny speaker in the ear canal. Unlike most conventional designs, open-fit devices allow low-frequency sound waves to reach the eardrum unimpeded. This yields a more natural sound and avoids the occlusion effect, in which one’s own voice sounds hollow and booming. Open-fit models may be ideal for aging baby boomers, whose hearing loss is usually limited to higher frequencies. ■

CONTACT: To find a physician who treats hearing loss, call 888-769-8633, or visit nyulangone.org/hearingloss.

Like Mother, Like Daughter

Proven Strategies for Anxious Parents Who May Pass Their Anxiety On to Their Children

One of the biggest challenges of parenthood is deciding when to let your child take risks and when to be protective. Watching a kid climb a tree or ride a skateboard can be nerve-racking. How do you keep him from breaking his neck without undermining his confidence and independence? “Kids pick up on parents’ fears,” notes Rebecca Berry, PhD, a psychologist at NYU Langone Medical Center’s Child Study Center. “So when you have the urge to yell, ‘Come down from there,’ take a few deep breaths. Then ask yourself, ‘Is this really something I need to worry about?’ In many cases, it isn’t.”

But not all parents are able to make such judgments easily. “If your anxiety is causing your child to miss out on activities that most of her peers enjoy, it can be helpful to seek professional guidance,” Dr. Berry advises. “Like many other mental health conditions, anxiety has an environmental as well as a genetic component. Studies show that kids whose parents struggle with anxiety are two to seven times more likely to develop an anxiety disorder themselves. But they do better when their parents’ symptoms are under control.”

Dr. Berry remembers one nine-year-old patient, Helene (not her real name), whose nervousness at school kept her from making friends or participating in class. She often went to the nurse’s office complaining of a headache or stomachache, and begged to be sent home. During Helene’s first session, Dr. Berry noticed that her mother, Doris, held open the bathroom door for her, using a handkerchief. Later, the girl explained that her mom also held her above the toilet seat, brushed her teeth for her, and insisted on holding her hand whenever they crossed the street. Dr. Berry realized that Doris, like her daughter, was suffering from an anxiety disorder. “She was terrified that something bad would happen to Helene if she wasn’t there to protect her,” she says.

Over the next few months, Dr. Berry treated Helene using cognitive behavioral therapy, which focuses on examining the relationships between thoughts, feelings, and behaviors. By exploring patterns of thinking that lead to self-destructive actions, and the beliefs that direct these thoughts,



Photo: Assembly/The Image Bank/Getty Images

“If your anxiety is causing your child to miss out on activities that most of her peers enjoy, it can be helpful to seek professional guidance,” Dr. Berry advises.

patients can modify those patterns and improve coping. (Helene was also referred to a child psychiatrist, who prescribed medication known to improve mood and reduce anxiety in kids.) As with most preteen patients, Dr. Berry asked Helene’s mother to attend every fourth session. She also suggested to Doris that treating her own anxiety might aid her daughter’s progress. Doris agreed to see a therapist and—with Dr. Berry’s help—to work on changing her behavior toward Helene.

For patients with anxiety disorders, a central element of therapy is controlled exposure to anxiety-inducing situations. “The idea is to gradually face

your fears, learning to cope with the distress and work through it,” Dr. Berry explains. Some of her “homework” assignments for Helene involved using a public restroom unaided, from opening the door to sitting in the stall; the challenge for Doris was to refrain from intervening. Helene was also assigned social challenges, beginning with making eye contact with a stranger and culminating with speaking in front of her class. Doris’s task was to encourage her, whatever her own worries.

After 20 weeks, mother and daughter had improved enough to end the therapy. “Helene’s physiological symptoms had lessened substantially,” Dr. Berry recalls. “Her expression was brighter. She laughed more. Doris was able to let her daughter be a kid.” ■

CONTACT: To find a doctor who treats anxiety, call NYU Langone’s Physician Referral Service at 888-769-8633, NYU Langone’s Child Study Center at 646-754-5000, or visit nyulangone.org/CSC.

An Investigator's Ant Farm Provides Fertile Ground for Discovery

Dr. Danny Reinberg's Insights into the Machinery That Turns Genes On and Off Lay the Foundation for Therapies That Could Silence Disease-Causing Genes and Proteins

The laboratory of Danny Reinberg, PhD, is crawling with ants. But don't call it an infestation. The six-legged insects, securely housed in hundreds of clear plastic bins, are crucial to Dr. Reinberg's award-winning research into the molecular machinery that controls how genes express proteins, the building blocks of life. "Ants are a phenomenal model for exploring the molecular forces that influence gene expression and health," says Dr. Reinberg, the Terry and Mel Karmazin Professor of Biochemistry and Molecular Pharmacology at NYU Langone Medical Center.

While ants within a colony all share the same DNA, their life spans can vary dramatically, depending on environmental cues. A queen ant can live up to 25 years, for instance, while a worker might die within 2 years. Dr. Reinberg is teasing apart the chemical signals responsible for such striking differences in longevity and behavior. After sequencing the genomes of two ant species, he and



Researcher Danny Reinberg, PhD, maintains thousands of ants in his lab.

his colleagues have linked the hyperproduction of a pair of enzymes with aging. His team has also identified important "chemical clamps"

that wrap around genes and cause heritable changes in the production of proteins, part of a phenomenon known as epigenetics. Such insights

into the machinery that turns genes on and off lay the foundation for therapies that could one day silence disease-causing genes and proteins.

Dr. Reinberg's efforts have been widely lauded. This year, the researcher joined the prestigious ranks of the National Academy of Sciences, among the highest honors bestowed on an investigator in recognition of distinguished achievements in original research. "Few scientists achieve his level of success," says Dafna Bar-Sagi, PhD, senior vice president and vice dean for science, and chief scientific officer at NYU Langone.

Back in his laboratory, Dr. Reinberg is outnumbered by ants by about 10,000 to 1. But there are few places on earth he would rather be. "Every day in the lab is just fascinating," he told the Howard Hughes Medical Institute, which funds his work through its highly competitive Investigators Program. "It gives you something new." ■

Waste Management for the Brain

Alzheimer's Researchers Discover Enzymes That May Neutralize a Toxic Protein

Every 67 seconds, someone in the US develops Alzheimer's disease, a degenerative and invariably fatal brain disorder marked by a buildup of abnormal protein. Recent studies suggest that this protein, beta-amyloid, may aggregate in clumplike plaques due to a dysfunctional disposal system instead of overproduction.

Researchers at NYU Langone Medical Center have now identified two enzymes in the brain that may help cut up beta-amyloid into smaller, nontoxic pieces. "By making the molecules smaller, perhaps it is easier to get rid of them," says researcher Jorge Ghiso, PhD.

The new study, published by Dr. Ghiso and colleagues in the *Journal of*

Biological Chemistry, may point to therapeutic strategies based on the actions of the enzymes. His group's experiments suggest that the enzymes chop up the amyloid-beta proteins and pare them down to a size that is both nontoxic and relatively stable.

Dr. Ghiso cautions, however, that the enzymes can be harmful in high amounts. "So simply increasing their concentration in the brain may have damaging consequences, since these molecules will degrade other things," he says. Even so, the new data may help scientists better understand how the body clears beta-amyloid. By carefully calibrating the process, clinicians may eventually aid its removal without triggering unwanted side effects. ■

An Anthropologist of Adolescence

Q&A with Dr. Chanelle Coble-Sadaphal, NYU Langone's Specialist in Adolescent Medicine

When is it a good idea to seek out a specialist in adolescent medicine?

Most adolescents are cared for by pediatricians or general practitioners. At NYU Langone Medical Center's Hassenfeld Children's Hospital, subspecialists like me care for patients who need an extra level of evaluation. When the medical or psychological issues are not so clear or obvious, it might be worth getting evaluated by an adolescent medicine specialist. For example, I saw a 15-year-old girl who had unintentionally lost 20 pounds in the last year. Instead of assuming that it was an eating disorder, I spent a lot of time delving into her social and psychological situation. It turned out that her weight loss was the reaction to trauma. About 90% of my time is spent teasing things out.

How do you connect with patients?

Recently I asked a young man to stop looking at his phone and talk to me for five minutes. He refused. So I started looking at my phone. He said, "You can't do that!" We ended up laughing. It was a breakthrough. I do a lot of observing and note taking so that on follow-up visits I can say, "What happened to your green hair?" Adolescents really appreciate the attention. I pay attention to teenagers wherever I am. I'm like an anthropologist of adolescence.

What drew you to this specialty?

Every adolescent needs at least one person to identify with, one person who is there for them. Someone they can trust, rely on, cry on. For some patients, I may be that person.

What was your own adolescence like?

I have an identical twin. As teens, we both had braces, freckles, and wore glasses. When the popular girls wouldn't let me sit at their lunch table, at least I had Danielle to eat with. My sister is now the principal of the middle school we attended. She will walk through the cafeteria and sit down with a kid who is eating alone. So we both ended up taking care of teenagers.



Dr. Chanelle Coble-Sadaphal with a patient

Adolescent Medicine: A Continuum of Care

Adolescent medicine specialists evaluate medical and behavioral problems within the context of puberty and tailor medical management to the patient's developmental needs. They focus on physical, psychological, social, and sexual development, caring for patients who range in age from 10 to 20. In the US, some 40 million youngsters are in that group, but there are fewer than 700 board-certified specialists in adolescent medicine. As the Hassenfeld Children's Hospital at NYU Langone Medical Center greatly expands its services and staff, the need for specialists in adolescent medicine is growing. "The Hassenfeld Children's Hospital offers adolescents the best of both worlds," Dr. Coble-Sadaphal notes: "specialized, individualized care supported by the resources of a major academic medical center."

Does your approach to caring for teenage boys versus girls differ?

Boys tend to use healthcare less frequently, so when one comes in, I want to engage, engage, engage. When boys leave the office, it's usually "OK, bye." The girls are different, and sometimes they give me a hug.

Do parents need to give consent for you to talk to their teens?

No. I always explain confidentiality policies and ask for "alone time" with the patient. It's about empowering the adolescent, not keeping secrets from parents. I partner with parents. Our strategies may be different, but we both have the same goal: a happy, healthy teenager.

Adolescence is a time of great transition. Do you ever feel like you're treating a moving target?

Yes, patients can be very different even from visit to visit. Rapid, uneven development is typical in adolescence. They can be very smart—the parts of the brain that process information and control movements mature first—but the ability to control impulses, assess risk, and plan ahead are among the last to mature. Hormonal changes also have a powerful influence, not only on reproductive development but on social behavior.

When a patient moves on to a doctor who cares for adults, do you feel a sense of loss?

Adolescent specialists do have a hard time letting go. It used to be that 18 was the cutoff for seeing a pediatrician, but now we know that brain development continues through the 20s. Neuroscience is showing that some people in their early 30s still have an adolescent brain.

If you could give adolescents and their parents one piece of advice, what would it be?

This too shall pass. ■

CONTACT: To schedule an appointment with Dr. Chanelle Coble-Sadaphal, call 646-315-0227.

Dr. Martin Blaser to Lead HHS Advisory Council on Prudent Use of Antibiotics

Expertise in Human Microbiome Will Aid Federal Government in Its Efforts to Curb the Emergence and Spread of Drug-Resistant Microbes

Martin J. Blaser, MD, the Muriel G. and George W. Singer Professor of Translational Medicine, has been appointed chair of the Presidential Advisory Council on Combating Antibiotic-Resistant Bacteria by US Secretary of Health and Human Services Sylvia M. Burwell. Dr. Blaser, professor of medicine and microbiology at NYU Langone Medical Center, is a leading expert on antibiotic use and the role of bacteria in human disease. He will head up the federal advisory council's effort to curb the emergence and spread of drug-resistant microbes.

Dr. Blaser and other scientists have cited the overuse of antibiotics, those fed to livestock to promote weight gain as well as those prescribed to humans, as one of the key contributors to this growing public health threat. As a result, doctors and scientists have chronicled a dramatic rise in multidrug-resistant bacteria (including "superbugs"), as well as collateral damage to the human microbiome, the diverse collection of bacteria that inhabit the gut and make up our inner ecosystem.

Dr. Blaser, director of NYU Langone's Human Microbiome Program, will oversee the new council's mission of offering advice, information, and recommendations to HHS Secretary Burwell. The council will also help shape programs such as the National Action Plan for Combating Antibiotic Resistant Bacteria, which aims to increase prevention and surveillance, identify and characterize resistant bacteria, and improve



Dr. Martin Blaser will advise the government on antibiotic stewardship.

the research and development of new antibiotics and other interventions.

An elected member of the National Academy of Medicine, Dr. Blaser is former president of the Infectious Diseases Society of America, former chairman of the Advisory Board for Clinical Research of the NIH, and coeditor of the authoritative *Principles and Practice of Infectious Diseases*. He was recently named to the 2015 edition of *Time* magazine's 100 Most Influential People in the World. ■



Andrew Chi, MD, PhD, has been appointed chief of neuro-oncology at the Laura and Isaac Perlmutter Cancer Center and codirector

of the NYU Langone Brain Tumor Center. Dr. Chi will lead all neuro-oncologic-related programs and will colead the center with John Golfinos, MD, chair of the Department of Neurosurgery. Dr. Chi comes to NYU Langone from Massachusetts General Hospital, Dana-Farber/Harvard Cancer Center, and Harvard Medical School. A highly respected physician-scientist, his research focuses on the identification of molecular genetic alterations that underlie the development, progression, and treatment resistance of brain tumors. Dr. Chi earned his MD and a PhD in biochemistry and molecular biology from Chicago Medical School, completed his residency in neurology at Harvard Medical School, and completed a fellowship and postdoctoral research in the Harvard program at Dana-Farber Cancer Institute/Massachusetts General Hospital.



Fritz François, MD, formerly chief of medicine at NYU Langone Medical Center, has been appointed chief medical officer and

patient safety officer. As associate dean for diversity and academic affairs from 2011 to 2013, Dr. François spearheaded efforts to address health disparities through medical education. In 2013, he was selected for the New York University Distinguished Teaching Award. Dr. François earned a BA with commencement speaker honors from NYU College of Arts and Science and an MD from NYU School of Medicine, where he completed his internship, residency (as chief resident), and gastroenterology fellowship. He is an academic gastroenterologist whose research interests include esophageal disease, *H. pylori*, hepatitis C, and colorectal cancer screening in minority populations. In 2011, Dr. François received the NYU Martin Luther King, Jr., Humanitarian Award.



Lauren Krupp, MD, has been named director of NYU Langone's Multiple Sclerosis (MS) Comprehensive Care Center and is

establishing its first center for pediatric MS. She previously served on the faculty of Stony Brook University, where she established the first pediatric MS center in the US, designated a Center of Excellence by the National Multiple Sclerosis Society. Dr. Krupp also codirected the adult MS Comprehensive Care Center at Stony Brook. Her recent research has focused on novel nonpharmacologic interventions to improve symptoms such as fatigue and cognitive problems. Dr. Krupp earned her MD from the Albert Einstein College of Medicine, completed her residency in neurology at Albert Einstein and Montefiore Medical Center, and completed fellowship training at the Neuroimmunology/Multiple Sclerosis Branch of the National Institutes of Health.

Connect with Us

News & Views is published quarterly for NYU Langone Medical Center by the Office of Communications and Marketing.

Readers are invited to submit letters to the editor, comments, and story ideas to communications@nyumc.org.

NYU Langone Medical Center

Kenneth G. Langone, *Chairman, Board of Trustees*
Robert I. Grossman, MD, *the Saul J. Farber Dean and CEO*
Kathy Lewis, *Senior Vice President, Communications and Marketing*

News & Views

Thomas A. Ranieri, *Editor*
Decker Design, Inc., *Design and Art Direction*

Visit us online at www.nyulangone.org.

To make a gift to NYU Langone, please visit nyulangone.org/give.

To find an NYU Langone doctor, call 888-769-8633 or visit nyulangone.org/doctors.

Copyright © 2015 NYU Langone Medical Center. All rights reserved.

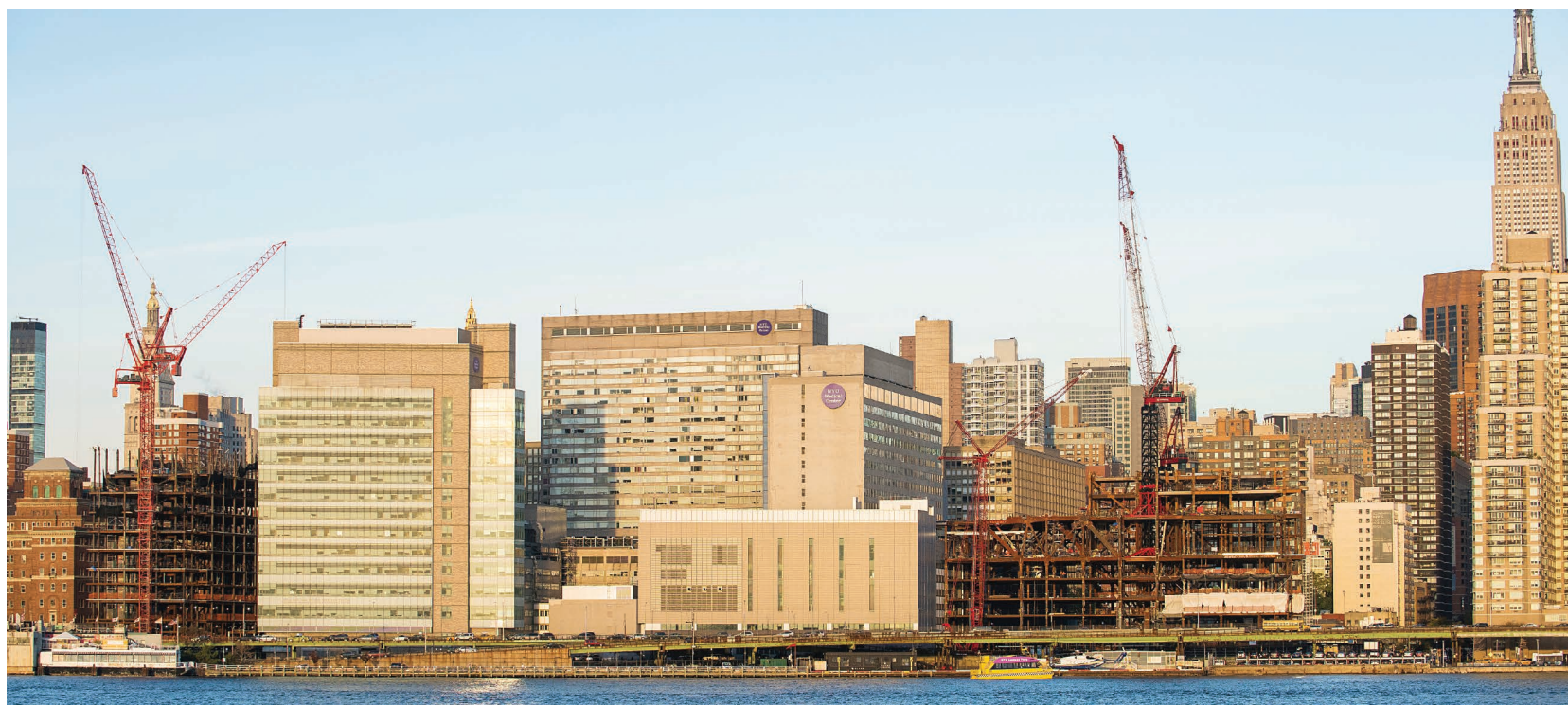


Office of Communications and Marketing
550 First Avenue
New York, NY 10016

2015 U.S. NEWS
& WORLD REPORT
BEST HOSPITALS
RANKINGS PLACE
NYU LANGONE AT

#12 ON ITS NATIONAL
HONOR ROLL

#2 AMONG HOSPITALS IN
NEW YORK STATE AND
NEW YORK METRO AREA



Photographer: Joshua Bright

Building on Our Reputation The steel frames bookending NYU Langone Medical Center's Joan and Joel Smilow Research Center and flagship Tisch Hospital represent two major additions to the main campus. The Helen L. and Martin S. Kimmel Pavilion (at right) will be an 830,000 square-foot acute-care facility with 374 beds when it opens in early 2018. The hospital will be the only one of its kind in New York City to offer all private rooms. It will also be home to a state-of-the-art pediatric facility, part of the Hassenfeld Children's Hospital. Rising to the left of Tisch Hospital is a 16-story facility for biomedical research that will house 160 investigators and their teams of scientists. The 365,000-square-foot building, slated to open in 2017, will boost the Medical Center's laboratory capacity by 25%.