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Missives From Life’s Journeys
I was going to be a bio-physicist when I grew up. With an undergraduate degree in physics, I went off to a post-doctoral program at Michigan State University to study the effects of ambient temperature on cellular aging. By the time I arrived to get down to cellular business, my lab mates were collectively focused on a serendipitous discovery in the lab that would forever change the field of cancer.

It was 1972. Barnett Rosenberg, the head of the laboratory, was a physicist who by the mid-1960s put his scientists to work on a biophysics experiment to test whether static electrical forces had anything to do with cell growth and replication. They plated *E. coli* in a broth and ran an electrical field across the dish. If static electrical force had an effect on cell growth, then the charge across the broth would disrupt the cells in the dish and stop the bacteria’s DNA from dividing.

It worked. But Rosenberg wanted to cover all bases and told his team to do the study again (and again). Don’t turn on the electrodes in the broth, he told his colleagues. And then see what happens. The bacteria in the broth did not divide. Rosenberg, who was 46, shook his head. It was a puzzle. “Find out what is in the broth that we don’t know about,” he said. The scientists returned with the answer: four platinum compounds. They tested each chemical, and only one of them — cisplatinum — stopped the bacteria from dividing. It turned out that they had stumbled onto an extraordinary find: The platinum used to make electrodes spilled off into the broth, and the result was bigger than anyone had ever imagined.

It led to one of the first effective cancer drugs: Cisplatin. By 1971, the lab was two years into showing that cisplatinum reduced the growth of solid tumors, and I spent my first year in graduate school studying animals with tumors treated with our platinum compound. By the end of the year, I remember thinking that my life as a researcher would never get more exciting than this. Then, for the first time in my life, a new form of cellular growth took hold: I decided I wanted to become a doctor.

I never even uttered the words “medical school” before that fateful day when I went home and told my wife I was going to apply to medical school. I had never even met a pre-med student. Nothing I had done in my academic career put me on the right path to medical school. I didn’t have the prerequisite classes. I had never even opened a medical textbook.

But after a year spent with hundreds of rodents I longed for personal contact. I needed people. I needed to become a doctor. I read a biology book in preparation for the Medical College Admission Test and applied to medical school before my score arrived in the mail. On August 1, 1972, I was accepted to NYU School of Medicine. I was the last person in the class to be admitted and without hesitation I cleaned out our bank account to secure my seat. A month later, I started medical school.

That day, I knew I was in the right place. I never regretted that decision.

In this latest issue of *Doctoring* you will read about journeys: An engineer who became an orthopedic surgeon. An orthopedic surgeon who scales mountains and has been called to save lives in the most remote places on earth. Two new medical students who chose to become doctors after years working in other fields. In listening to the stories about how doctors ended up where they are, you may see yourself and wonder: What if? What if I had done something different? But doctoring is a calling. It is a connection we make with people. It is our way of making our patients a little healthier and hopefully a lot happier.

This issue is dedicated to the journey.

*Sincerely,*

Lawrence G. Smith, MD, MACP

Physician-in-Chief and Dean, North Shore-LIJ Health System
Look inside for iPad exclusives.

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Point to Happy helps kids diagnosed with an autism spectrum disorder identify emotions. Created by Miriam Smith and her daughter Afton Fraser, and featuring photography by Smith’s other daughter, Margo Smithwick, Point to Happy pays homage to Ms. Smith’s grandson, who was diagnosed with autism as a child. A great picture book to put in waiting rooms for kids of all ages, it is about emotion and communication — about the expression of feelings that humans experience every minute of every day.

Available on Amazon.com.

Get Pulled Into Problem-Solving

You won’t want to miss the engaging three-part BBC documentary — The Code — now available on DVD from Athena. The Story of Math author, television personality and Oxford University professor Marcus du Sautoy, travels around the globe trying to solve the world’s most vexing mathematical mysteries. The series, broadcast on BBC last year, was not available to US audiences until now. Exploring the power of numbers, The Code is both entertaining and educational.

For more information about the series and the DVD, visit bbc.co.uk/programmes/b00zs6sl or scan the QR code at right for easy access.

Putting the Best Face Forward

Fixing faces creates temporary wounds marked by inflammation and bruising, and Andrew Jacono, MD, section head of facial plastic and reconstructive surgery for the North Shore-LIJ Health System, has been thinking of ways to reduce these problems since he began practicing medicine. After reading every study on wound healing he could find, Dr. Jacono came up with the right mix of co-factors — anti-inflammatory and homeopathic anti-bruising agents — now available to patients all over the world. The two homeopathic remedies, J PAK Systems™, can be used before or after aesthetic injectable and surgical procedures to reduce swelling and bruising.

“Scientific studies indicate that homeopathic remedies like arnica montana and dietary supplements like bromelain and hyaluronic acid can help minimize swelling and bruising and can speed healing,” Dr. Jacono said.

Dr. Jacono also authored The Face of the Future — Look Natural, Not Plastic, which was released in October.

J PAK Systems are available at JPakSystems.com or by calling Dr. Jacono’s office at 516-773-4646 or 212-570-2500. Find Dr. Jacono’s book on Amazon.com.
Paul Wright, MD, neurologist at North Shore University Hospital, stays fit through triathlon training. He has completed the NYC Ironman and participated in the Championship of Israel.

“I give myself goals, no matter how small, to keep active and strive for something,” Dr. Wright said. “Running races is exciting, and everyone is so happy to be there. I really enjoy the camaraderie of competition.”

Struggling to make time for exercise? Dr. Wright says you can always wake up earlier, and he encourages people to find an activity they enjoy.

Jacqueline Moline, MD, vice president and chair of population health at North Shore-LIJ, agreed. Her recommendation is to find activities you will want to participate in for life. Dr. Moline enjoys cardio and weight-lifting workouts at the gym.

For Dr. Moline, a physician’s understanding of the difficulties that come with maintaining a fitness regimen is crucial to providing patient care. Patients often struggle to commit to regular exercise for reasons ranging from work- and family-related responsibilities to medical conditions. By communicating their understanding of the struggles of staying physically active, physicians can make a deeper connection with patients who may feel challenged in the same way.

EXTENDING THE MESSAGE

North Shore-LIJ promotes community physical fitness events in the greater New York metropolitan area. The health system is a signature sponsor of the City Parks Foundation, a nonprofit organization that supports park services, including various races.

“It’s important for healthcare professionals and organizations to be present in communities as partners for health,” Dr. Moline said. “We need to make sure people stay active, whether walking, gardening, going up and down stairs, or even walking the dog. When a person makes small, incremental changes, the effects add up over time to provide big benefits.”

**Do You Push Yourself?**

Maybe you would if you had a personal trainer in your pocket. Check out these Apple and Android apps:

- **Couch-to-5K:** For joggers just starting out, this popular program helps you move from lounging in your living room to running 5 kilometers (3.1 miles).
- **miCoach by Adidas:** Create personalized training plans that focus on cardiovascular fitness, flexibility or strength with this free app.
- **Nike+:** A top-ranked running app, Nike+ tracks your distance, pace, speed, calories burned and other stats. Challenge yourself to beat your personal records, and easily share your runs through social media.
- **RunKeeper:** Track several types of workouts — running, cycling, hiking, skiing and swimming — with this does-it-all app.
Both men met at Bryn Mawr College’s postbac program and applied for seats in the second class of the Hofstra North Shore-LIJ School of Medicine because of the type of learning that takes place there: hands-on and independent. They decided at Bryn Mawr that if and when they made it in the School of Medicine, they would rent a house together. And they did.

The postbac program works with 17 schools around the country. Students receive one shot at early admission to their first-choice school. If they get in, they go. The School of Medicine had 5,043 applications this year, and 3,828 of those students submitted a supplemental application. Of the completed applications, close to 700 students were interviewed. Applicants came from a dozen states and 44 schools. Only 60 students make up the school’s second class, and for Mr. Squiers and Mr. Petit, the acceptance letters arrived at the perfect time.

FAMILY FIRST

“More and more people are going into medicine as a passion and not for the money,” Mr. Squiers said. He would know — his passion galvanized his resolve to...
attend medical school, though some of life's turns carried him farther from his destination and he waited decades to go to medical school. Since middle school, he'd set his sights on becoming a doctor. But during his freshman year at the University of Pennsylvania in 1984, he drifted into mathematics and computer science classes.

By the time he graduated and secured a job as a scientific programmer for Lockheed Martin, Mr. Squiers realized that he was in the wrong profession and discerned that he should apply to medical school. Within months of taking his new job, however, he added a new wife and, a few years later, a new baby girl.

“I thought that if I went to medical school, I would never see my daughter,” he explained. Being an involved father was of central importance to Mr. Squiers because his own father walked out on his mother when he was little, and his stepfather adopted him.

After a few years at Lockheed, Mr. Squiers went into computer sales. He applied to Bryn Mawr’s postbac program in 1991 and was accepted, but his five-year deferment slipped by before Sarah made it into elementary school.

FINALLY HIS TURN

When Mr. Squiers’ ex-wife moved north to San Francisco, he continued to do fatherly things like homework with his daughter via computer video interface. In high school, his daughter Sarah came to live with him. When they went off to look for colleges, she said, “It’s time you went to medical school.”

He applied to Bryn Mawr again for the class of 2010, but his application was denied. The director of the program thought that too much time — almost 20 years — had elapsed since Mr. Squiers had stepped foot in a classroom. He would change that, he thought. He then drove down to UCLA, found an open spot in a general chemistry course and aced it. He reapplied to the postbac program and was accepted. When his acceptance letter came from the School of Medicine, Sarah posted on Facebook, “My papa was accepted to Hofstra.”

Mr. Squiers had always told Sarah that “you don’t learn something unless you are doing it,” which is why he was so drawn to the curriculum at the Hofstra North Shore-LIJ School of Medicine. The first class recently completed emergency medical technician training, and Mr. Squiers will be pushing 50 when he graduates and heads into a residency program.

“I have no plans to ever retire,” he said. “I’ve waited too long for this.”

SOLDIERING ON

Mr. Petit feels the same way, though he harbored no interest in medical school during his childhood in Niceville, Fla. As the only kid born to a father in the Air Force, all Mr. Petit ever wanted was to become a soldier. His plan was right on target — he was accepted into The Citadel in Charleston, SC, proudly donned a uniform and majored in military history. The Citadel taught him how to think, and his time in the Army taught him how to think on his feet.

The soldier was proficient on other fields as well. He loved sports growing up and played professional rugby as a soldier in Germany. He learned everything he could about orthopedic injuries from his trainers, orthopedic surgeons and team doctors throughout his rugby years.

After college, he went straight into the Army. By age 23, he was an officer in the US Army Military Police Corps and had his own platoon heading into Iraq. Their job was to coach, train and mentor the Iraqi police force. During his second tour, anti-Iraqi forces aiming mortars and rockets at the police station in Baghdad overshot their position. The mortars landed on a street where children had been playing soccer.

Mr. Petit spent the afternoon helping his medic tend to the wounded children. Over the next few years, he found himself doing the job of a medic and treating amputees and gunshot victims. Those were good days, he told himself. Those were the days he felt that he’d made a difference. Those were the days that taught him that he wanted to become a doctor.

“It all helped in my decision to pursue medicine,” Mr. Petit said. He left the military in 2001, halfway to retirement and six months before his next promotion. “I have never regretted that decision,” he reflected. “There’s nothing else I would rather be doing.”

Robert Squiers, left, and Nick Petit, right, train in the lab with David Elkowitz, DO.
JUSTIN JAMISON WAS MIDWAY INTO A MASTER’S DEGREE IN COUNSELING WHEN HE WAS INVITED TO A LIFE-CHANGING DINNER WITH A MENTOR FROM HIS UNDERGRADUATE YEARS AT FISK UNIVERSITY IN NASHVILLE, TENN.
Maurice Ransom, a Fisk alum and unofficial advisor to Mr. Jamison’s fraternity, Omega Psi Phi, wanted to introduce Mr. Jamison to psychiatrist Gregg Hunter, MD. Dr. Hunter is a Fisk alum and fraternity member who had continued his graduate education right across the street from his alma mater at Meharry Medical College.

Dr. Hunter didn’t contain his first thought following a warm introduction: “Why don’t you want to be a psychiatrist?” The challenge came before the menu even touched the table.

Mr. Jamison laughed. He was born with a calm demeanor and sharp intellect and became the kid who loved opening presents if they contained microscopes or telescopes, the teenager with a passion for chemistry and physics, the college student who spent years volunteering to help underprivileged kids, especially runaways, and the graduate student who worked around-the-clock on weekends to care for young people mandated to enter state-run group homes.

He put down the menu and smiled. There were no words. There didn’t need to be. The guy was right, Mr. Jamison thought. By the time the meal was done, Mr. Jamison was thinking hard about medical school. He looked back on the road that had brought him to that dinner and realized that his penchant for science and his ease when counseling troubled teens were the characteristics of a doctor in training, or — more exactly — a psychiatrist in training. With 30 of his 50 credits toward his master’s complete, he immediately signed on for the science classes he had missed in college.

**A JUMP-STARTED JOURNEY**

“That day lit a spark,” said Dr. Jamison, now a first-year resident in psychiatry at The Zucker Hillside Hospital and LIJ Medical Center. His journey was a long haul. It took 18 months to complete the requisite science courses and finish his master’s degree. During that time, he’d also completed an internship at the Oasis Center in Nashville, Tenn., where he began his work counseling kids in trouble at home or on the streets.

He then applied to Meharry. Admissions staff were interested, he said, but he was somewhat off the traditional track, so they recommended that he apply for a spot in a postbaccalaureate program. That would add another year, but with the finish line in sight, Mr. Jamison applied.

The wait for news about his admission to the program seemed endless. Then, the phone rang — seemingly out of the blue — and one of the deans from the program asked whether he was interested in starting school that very day. After completing the postbac program, Mr. Jamison was accepted into the medical school.

"From day one [in the program], I saw myself as a psychiatrist,” Dr. Jamison said. “That’s why I was there.”

**FINDING A HOME AT ZUCKER HILLSIDE**

A week before graduating from Meharry Medical College in 2011, Mr. Jamison had another chance meeting with Dr. Hunter. Mr. Jamison shared that he had already applied to psychiatric residency programs and that he regarded Dr. Hunter as the catalyst for his change.

After graduation that summer, Dr. Jamison proposed to his wife, and they opened a map of the United States and began highlighting possible places to live. Neither had ever been to New York, but it intrigued them.

Dr. Jamison took interviews all over the country, but everything about Zucker Hillside felt right. He liked that Zucker Hillside was a free-standing hospital. He appreciated the honesty and insight of the people there. He valued that there were nine units where he would get a chance to see every kind of serious psychiatric problem.

By July, the young couple married, packed their car and drove to New York. Now, after more than a year, Dr. Jamison said, “I sound like I know what I am talking about.”

From day one [in the program], I saw myself as a psychiatrist. That’s why I was there. — Justin Jamison
Healing Patients
With a Dose of Support
FROM LOVED ONES:
New Practices Enhance Patient-Centered Care Model

By Allison Burin and James Cuniglio
A recent graduate from the Adelphi University nursing program, Ms. Giacalone underwent open-heart surgery at LIJ Medical Center to remove clots from her lungs and arteries. She suffered from organ failure, internal bleeding, and lung and heart failure. Her chances of recovery were slim.

Severe internal swelling prevented the surgical team from closing her breastbone after surgery, so she was brought to the Intensive Care Unit (ICU) with her chest open — only a dressing covered her heart. Over the next 48 hours, the swelling subsided, and she was taken back to the operating room to have her chest closed. She spent the next seven days in a coma.

Disoriented and confused, Ms. Giacalone awoke from her coma to find her entire family standing around her bed in the ICU. “I can’t put into words how incredibly comforting it was for them to be there when I woke up,” said Ms. Giacalone, RN, LIJ Medical Center.

According to the young woman, having family by her side during this traumatic ordeal, including the time she spent in a coma, might have been the difference between life and death. “They never left my side. They played music, helped explain things and kept telling me not to be afraid — that everything would be okay. I truly believe that the positive energy and support I received from my family played a major role in my recovery.”

BACK TO BASICS

Experiences like Ms. Giacalone’s highlight the importance of a truly integrated, patient-centered care model where patients can recover with emotional support from their loved ones. It also reminds physicians about why they began practicing medicine in the first place — to heal.

“Delivering care and healing our patients in an environment where their needs are met by not only the healthcare team but also their loved ones is at the core of this critical shift,” said Tara Zahtila, DO, associate director of the Family Medicine Residency at Plainview Hospital. “The unsettling experience of being hospitalized causes many patients a great deal of psychological stress. By embracing the influential role of family and friends in patient recovery, we can, to some extent, minimize the detrimental feelings of fear and separation and promote stronger senses of comfort and compassion.”

Dr. Zahtila helps lead a dedicated Patients Rights Task Force with clinical and administrative leaders from across the North Shore-LIJ Health System. The Task Force is charged with implementing a seamless, system-wide approach to patients’ rights and visitation, as designated by the Centers for Medicare and Medicaid Services (CMS). While the changes will not affect the kind of treatment that is delivered, Dr. Zahtila said they will affect how it is communicated, documented and received by the patient — touching the entire healthcare team.

NEW PRACTICES IN PERSPECTIVE

The new practices are designed to bring family members and friends into the plan of care, empowering them with a greater ability to give emotional support and decision-making that is so critical to patients’ recoveries and prolonged well-being. In line with CMS regulations, the health system’s enhanced patient rights practices enable patients to:

1) designate a patient representative to participate in the
plan of care; 2) choose a support person for the duration of their hospital stay; and 3) have visitors of their choosing at any time, without restriction.

"While it may not be our first instinct to view these new practices as natural, it gets back to the heart of doing the right thing for our patients and putting their needs first," said John D'Angelo, MD, chair of the Emergency Department (ED) at Glen Cove Hospital. "Any one of us would want to be in the room if our child were sick — this is no different."

Dr. D'Angelo has seen firsthand the impact of including family in the delivery of care in the ED. He said the new patient rights and visitation practices have already been successfully implemented at Glen Cove and North Shore University hospitals, with additional facilities rolling out the practices over the next few months.

"This is a perfect opportunity to reflect on the bigger picture of healing patients and let our natural instincts bring people together to help shape patient outcomes," he said.

**What YOU Need to Know**

1. **Patient Representative:** a person designated by the patient who can help make healthcare decisions, exercise the patient’s rights, and participate in the development and implementation of the patient's plan of care.

2. **Support Person:** a person designated by the patient to help carry out visitation decisions and provide emotional support and comfort during the course of the hospital stay.

3. **Open Visitation:** a policy that any visitor welcomed by a patient or designated support person may visit at any time, without limitation, unless there is a clinical rationale for restricted visitation.

"Moving Forward"

To help ease this transition, the North Shore-LIJ Health System created a dedicated Patients Rights Portal (northshorelij.com/patientrights) specifically for physicians and other members of the care team to learn about integrating these new policies. The approach is being vigorously adopted across North Shore-LIJ’s 16 hospitals and other patient care facilities in the region.
Howard Kerpen, MD, director of the Lorber Center for the Advancement of Medical Education at LIJ Medical Center and Lorber professor of medical education and professor of medicine at Hofstra North Shore-LIJ School of Medicine, shared a story about a patient who just needed to talk.

Dr. Kerpen: I had a patient for many years, a lovely, older woman — I’ll call her “Helga” — who spoke with an Eastern European accent. She used to come into the office with her husband, who eventually passed away. After his death, whenever she waited in the exam room to see me, she would play a recording of her husband whistling to relax her. She was a sweet, quiet woman — a memorable patient.

One Friday evening in September 2001, she called and asked if she could come to the office and see me because she didn’t feel well.

“What’s the matter?” I said.

“I just don’t feel well,” she said. “May I come in?”

It was Friday evening and I just wanted to go home, but I said to myself, “How can I say no to this undemanding woman?” I told her to come in after hours.

Helga arrived at the office around 6:30 p.m. and again I asked her, “What’s the matter?”

She just looked at me and said, “Doctor, they’re burning people again.”

“What do you mean, Helga?” I said.

“From my apartment, I saw the smoke on September 11th.”

And the day just stopped. I had no more concerns about going home, no more concerns about the time. For the next 30 minutes, I simply sat there and listened to her recount her experiences in a concentration camp during the Holocaust.

She told me first about her younger sister, who by rights would have been executed and cremated in an oven at the camp. Nazi physician Josef Mengele sorted female prisoners upon arrival and decided who would be executed and who would be forced to work. Helga’s sister had learned German, so she spoke to Mengele in his native language, lied about her age and said she was in good health, thereby avoiding execution.

Helga related how her mother died of typhus several weeks before the camp was liberated. Helga also contracted the disease and was dying when British troops arrived at the camp. The British told Helga’s sister that Helga was dying, but the young girl said, “You got here too late to save my mother, but you will save my sister.”

I began asking Helga about life in the camp, and I remarked that she had been in the same camp as Anne Frank. She said, “Oh, yes, I knew Anne.”

I had read The Diary of a Young Girl and been to the Anne Frank House in Amsterdam.

“What was she like?” I asked, as if I were asking about a movie star.

“Doctor, she was like all of us,” Helga said. “She was a young girl. She just wanted to have fun.”

I was mortified. To me, Anne Frank had been a character in a novel. Helga’s simple statement cut through my illusions and brought into focus the fact that this was a very real girl, one of millions, who had suffered unspeakable horrors. It was then that I just stopped talking.

I didn’t give Helga any medicine, I just gave her my time. She left the office feeling a bit better. I left the office saddened but enriched.

An internist is taught from day one to listen carefully to patients. Sometimes just listening is beneficial not only for the patient, but for the physician.
Sound Science: The Cartography of Cochlear Implants

by Jamie Talan

SIX-YEAR-OLD LEANNA HUGS HER YOUNGER BROTHER, DOMINIC, WHO IS DRESSED IN HIS PINT-SIZED HOSPITAL GOWN AS HE IS PREPARED FOR SURGERY AT LIJ MEDICAL CENTER. SHE WEARS BLACK LEGGINGS AND A MATCHING BLACK AND WHITE DRESS. A RHINESTONE HEADBAND HOLDS BACK HER LONG HAIR. TUCKED BEHIND HER LEFT EAR IS A RED HEARING AID. IN FOUR HOURS, SHE, TOO, WILL WEAR A HOSPITAL GOWN AND BE TAKEN INTO THE OPERATING ROOM.
Both children were born with a genetic condition called Pendred syndrome that triggers progressive hearing loss. Their hearing aids can only do so much. The surgery will implant a cochlear device that directly stimulates the auditory nerve. The subsequent mapping of sounds from the environment will enable the children’s brains to perceive sounds more naturally.

Andrea Vambutas, MD, medical director of Apelian Cochlear Implant Center at LIJ Medical Center, has performed hundreds of cochlear implants, yet the feat of bypassing the hair cells of the inner ear to create natural sound at every frequency and range is still something that has her shaking her head in disbelief and awe.

"Sometimes, I stand behind my patients who have cochlear implants and say something just to hear them answer me,” she said. “There is nothing like improving someone’s hearing.”

Leanna was 18 months old and developing normally except for language. Her parents sought advice from early intervention specialists, who sent Leanna to an audiologist to test her hearing. She had profound hearing loss. No one in either parent’s family recalled having a relative born with a hearing problem, but genetic tests revealed that Leanna had inherited two copies of a gene for the congenital malformation of the inner ear — one from each of her parents. They had no idea, of course. The gene is recessive, and their union brought the two recessive genes together, which places the risk of any of their children having Pendred syndrome at 25 percent.

When Dominic was born three years ago, the results of his initial hearing test were normal; however, a genetic test showed that he, too, was born with the syndrome. He was fitted with hearing aids by the time he was three months old.

Both children had been wearing hearing aids that enabled them to develop normal speech and hearing, but Dominic’s hearing was worsening, and his parents decided it was time for a cochlear implant. Leanna was also a candidate for an implant.

One in every 1,000 to 2,000 children is born deaf — 90 percent of them to parents with no hearing impairment — and two in 1,000 children have some hearing loss. In the past five to 10 years, a growing number of states have mandated that newborns be screened for hearing loss. The earlier children with hearing loss are identified and fit with hearing aids and/or cochlear implants, the better able they will be to develop language skills, explained Dr. Vambutas, who spends half of her time researching hearing loss. (See "Searching for Answers, Finding Serendipity" on page 17.)

INSIDE THE OR

Dominic is Dr. Vambutas’s first case of the day. She begins by carving out a piece of the mastoid bone behind the ear drum and then heads into the inner ear to implant a 24-channel electrode attached to a matchbook-size internal receiver stimulator that will fit snugly along the skull, adjacent to the mastoid. Once she finds the incus and the horizontal semicircular canal, she maneuvers in front of the facial nerve (monitoring with electrodes to avoid the nerve) and makes her way to the entrance of the middle ear. From there, she’s almost in the home stretch: She can see the cochlea.

Once the implant is in place, audiologist Leslie Wexler is on hand — either in person or remotely — to test every channel of the electrode to ensure it is picking up sound. The software Ms. Wexler uses — neural response telemetry, or NRT — evaluates whether the person is hearing in an audible range. If not, NRT reconfigures the electrode. It’s not unlike tuning a keyboard, Ms. Wexler explained.
In medical school, Dr. Vambutas knew that she loved surgery. Specializing in ear, nose and throat was particularly alluring to her because many otolaryngologists spent time researching, and she had always been drawn to puzzles.

From the minute she began working in the lab at LIJ Medical Center, Dr. Vambutas became particularly interested in one perplexing condition: hearing loss triggered by an autoimmune response. Patients with this condition are hard to diagnose and even harder to treat. During her research, Dr. Vambutas collected fluid from patients undergoing cochlear implant surgeries and identified a decoy receptor, a protein that sequesters inflammation. She learned patients whose hearing improved with steroid treatment had far more decoy receptors than those who failed to get better.

The finding was important on many levels. For one thing, it offered a target for diagnosis and treatment. About 50 percent of patients with autoimmune inner ear disease (AIED) don’t improve with high-dose steroids.Clinicians generally rule out AIED and start looking for other reasons for the hearing loss.

Dr. Vambutas went on to find that interleukin-1 receptor type II (IL1R2) is the molecular decoy that traps interleukin-1 beta and does not initiate subsequent signaling events, thereby suppressing an inflammatory response. IL1R2 expression is induced by the steroid dexamethasone. Her laboratory reported that the aberrant expression of interleukin-1, an inflammatory protein, is associated with steroid resistance in patients with AIED.

Based on these findings, published in the Journal of Immunology in 2011, Dr. Vambutas and her colleagues have enrolled corticosteroid-resistant AIED patients for a Phase I clinical trial to determine if a new medication could salvage some hearing in these patients. The clinical trial is testing the benefits of an interleukin-1 receptor antagonist called anakinra (Kineret) for the treatment of corticosteroid-resistant autoimmune hearing loss.

IF YOU CAN’T STUMP THEM, JOIN THEM

Corey Stern was in the seventh grade when he noticed he was having trouble hearing. A hearing test confirmed his suspicion of hearing loss, but a subsequent test failed to find a drop in hearing. For months, the adolescent received conflicting test results, and the problems with his hearing seemed to come and go. His family made an appointment with Dr. Vambutas, who had always thought that AIED was an adult problem.

Mr. Stern had the classic hearing fluctuations associated with AIED. Despite treatment with steroids taken orally and injected into the ears, his hearing had failed to normalize and seemed to be on a progressive downhill course. Mr. Stern spent a lot of time in Dr. Vambutas’s office trying to figure out what treatments might help him. He always had questions, and he said his doctor always had the patience to answer them. One day, however, Dr. Vambutas challenged her patient.

“You have a lot of questions,” she said. “Would you like to work on some of those answers yourself?”

With that, Mr. Stern joined Dr. Vambutas’s lab as an unpaid volunteer, helping one afternoon a week with a number of experiments and even creating new ones. He studies his own blood looking for responses to a range of supplements and medications.

“It’s been an amazing experience for me,” said Mr. Stern, who wears hearing aids but has not ruled out the possibility that he may one day need a cochlear implant. Some days, he wakes to silence. Other days, his hearing loss is moderate.

“[Working in the lab has] helped me learn a lot about my disease,” he said. “Maybe I will end up helping others.”
IN HIS EPIC NOVEL LES MISÉRABLES, VICTOR HUGO WROTE, “TO LEARN TO READ IS TO LIGHT A FIRE; EVERY SYLLABLE THAT IS SPELLED OUT IS A SPARK.” ABOUT 150 YEARS AFTER HUGO PENNED THESE WORDS, PHYSICIANS WITH THE NORTH SHORE-LIJ HEALTH SYSTEM CONTINUE TO IGNITE THE LITERARY FLAME.

UNDERSTANDING HISTORICAL HERITAGE

With a busy schedule and a wide variety of interests, James Crawford, MD, PhD, chair of pathology and laboratory medicine at North Shore University Hospital and LIJ Medical Center, still finds time for reading. Once a reader of mostly fiction, Dr. Crawford was inspired by his father, a decorated veteran of World War II, to learn more about history. For 28 years, Dr. Crawford has focused on understanding how the past affects the present and the future. Two of his favorite texts include A Diplomatic History of the United States and the 1942 edition of Europe Since Waterloo.

“It’s nourishing to learn about and appreciate journeys people before us have traveled,” said Dr. Crawford, who still keeps his love for fiction alive by rereading the works of J.R.R. Tolkien from time to time.

He enjoys fitting reading into his schedule when not spending time with family, singing in his church choir, exercising or, occasionally, playing the bagpipes.

RELAXING WITH THE BARD

Tara Zahtila, DO, associate director of the family practice residency and family medicine physician at Plainview Hospital, grew up as an avid reader. During summer vacations from school and intensive ballet training, her parents encouraged her to spend time reading every day. When she isn’t reading to her daughter or researching evidence-based medicine and the legalities of patients’ rights, Dr. Zahtila spends time with the work of William Shakespeare.

“Shakespearean language is rich and beautiful,” Dr. Zahtila said. “It’s challenging and intellectually stimulating. I love taking a break from the day by reading Shakespearean sonnets.”

AN ARTFUL APPROACH

For David Chalif, MD, chief of neurovascular neurosurgery at North Shore University Hospital, his love of medicine, art and reading are interwoven, providing both enjoyment and a life balance. Dr. Chalif, who has published articles integrating neurosurgery and Picasso, enjoys a range of literary genres. Recent reads include Steve Martin’s An Object of Beauty, Anne-Marie O’Connor’s The Lady in Gold and Walter Isaacson’s biography of Steve Jobs.

“I try to surround myself with books — at home with my personal collection or at the office with neuroscience texts,” Dr. Chalif said. “Reading is mandatory.”
KEN KAMLER’S FIRST CLimb WAS ON HIS FATHER’S BOOKSHELF. HE WAS NO MORE THAN SEVEN WHEN HE LOOKED UP AND READ THE LETTERS ON A LEATHER-BOUND BOOK — ANNAPURNA. THE REST IS ANYTHING BUT HISTORY.
He said it over slowly in his head three times before he set out on his expedition, climbing with painstaking care straight up along an inch-thick piece of dark wood. When he reached the second shelf from the top, he rubbed his hands along the book’s spine. He was a precocious reader, and by the time he took *Annapurna* to his room, he’d been through a third of his father’s book collection. It took him three nights to read about Maurice Herzog and the fellow members of the French Alpine Club who climbed the Himalayan peak — *Annapurna* — in the summer of 1950. It was 26,493 feet at the summit, and no climbers on earth had ever gone so high.

It would be Herzog, of all the mentors he would meet in this world, who inspired in Dr. Kamler the quest to explore other worlds. In the Bronx, where he grew up, no one talked about mountain climbing or space — Dr. Kamler’s other obsession. He chose a more practical profession, medicine, but by the time he became an orthopedic surgical resident, he was climbing some of the most treacherous terrain in the world, saving lives and paving a new road in wilderness medicine. What’s more, his medical mountain experiences gave him early entrée into The Explorers Club, whose members included many of his longtime heroes: legendary mountain climber Edmund Hillary and several astronauts.

**EXPLORING NEW HEIGHTS AND DEPTHS**

Today, the boy who took his shoes off to scale his father’s bookshelf has written several books arguably as riveting as Herzog’s tale. He’s made it to Everest six times, once coming within 900 vertical feet of the summit. Every climb offered an opportunity to practice medicine. He found himself the only physician on the mountain when the skies darkened over Everest in 1996. His group was at Camp Three, 24,000 feet above sea level, when word came down that two groups of mountaineers a few thousand feet ahead of him had been injured. The two best climbers on Dr. Kamler’s team went up to the summit and followed the doctor’s orders by radio. Dr. Kamler spent days treating the survivors who made it down to his camp.

Those who couldn’t get down — a dozen climbers — lost their lives. “They were about as unreachable as if they’d been on the moon,” Dr. Kamler said.

Two years later, Dr. Kamler teamed up with National Aeronautics and Space Administration (NASA) scientists interested in his two specialties: doctoring and mountain climbing. The NASA team wanted him to accompany them up Everest to test equipment in high-altitude environments. These sensor devices enabled remote monitoring of blood pressure, respiration rates and internal body temperature in real time. The
team wanted to utilize Dr. Kamler’s expertise in both Everest and science and also hoped some of his climbing buddies would wear the equipment on the way up and on the way down. Dr. Kamler said “yes.”

He made two Everest trips for NASA and was then asked to participate in Project NASA Extreme Environment Missing Operations (NEEMO), a capsule off Key Largo, Fla., designed to simulate life in space. In NEEMO, astronauts spend two weeks under the sea, venturing out for daily routines, including “space” walks in water. The intention was that he would not actually go inside the capsules, but dive and inspect workstations on the reef.

Bill Todd, the NASA program director, accompanied Dr. Kamler to NEEMO. They had finished the dives and were having lunch on their boat when they received a call that one of the astronauts had cut his hand. "You’re a hand surgeon," Mr. Todd said. "They need you below." However, there was a problem. Dr. Kamler had almost reached his maximum dive time for the day. With about 50 minutes left on the clock, he made it into the pressurized capsule. Before he could tend to the astronaut, he had to strip down because wet clothes cause a moisture problem inside the capsule. They handed him a towel. The wound itself was anticlimactic, he said. It was a small cut on the thumb, but he sewed it up for good measure. “It was a simple operation but the first time I ever practiced medicine wearing only a towel,” he added.

Since then, he’s made several more dives to NEEMO. He’s gone on to teach NASA engineers how to perform surgical procedures in weightless environments. “It’s an amazing feeling,” he said. “There is no resistance. If you let go of a scalpel, it stands in the air just where you left it.” The experiments taught NASA scientists two lessons: Humans are better than robots, and astronauts are just as good as doctors at simple surgical techniques, such as suturing.

COMMON GROUND
ON THE OTHER SIDE OF THE WORLD

Dr. Kamler wrote about his Everest experiences in Doctor on Everest and a more recent book, titled Surviving the Extremes, about life in some of the world’s most treacherous environments.

A great storyteller, Dr. Kamler had, at one point, talked his way into getting the king of Bhutan to allow him into the once-closed eastern parts of Bhutan to assess the healthcare needs of the villagers. When he finally secured a proclamation to make the trek, he went with Michael Hawley, PhD, a professor of engineering at MIT; his assistant, Charlotte; and a few local guides. There were no roads, only rough mountain paths, and the regions shared no common languages.

“We took the path as far as it could go,” Dr. Kamler said. “The road just stopped.”

» continued on next page
They found a college kid in one of the villages who spoke English and Dzongkha. He introduced them to his father, who spoke Sharchop. The young man's father accompanied the foreigners into territory forbidden to the outside world. They found a monastery in the village. A monk who spoke all three languages of the area traveled with them right up to the Tibetan border. The monk's fuchsia robe blew over the relentlessly steep terrain. He wore a smart pair of Italian leather loafers. He was fast like dust. The trip was going to take four hours. Every so often they would catch up to the monk and find him talking casually to a tree, river or rock.

The trip took much longer than the Americans anticipated. By the sixth hour, virtually all of the liquids had been consumed except for a two-liter bottle of Coca-Cola that the monk carried in a side pouch. They were getting to the top of the pass, thirsty as cacti, and the monk stopped again, reached for the soda, opened it up and poured it on an altar as an offering to God. Charlotte, all 6'2" of her, collapsed to the ground. She was tired and parched and couldn't think of anything better to do than cry. At that moment, a Nomadic yak herder and his wife passed. The woman wore a hat and a red dress, both made of yak fur. She sat down next to the crying woman and started talking in her native language, Brokpa. She took Charlotte's hand and gave her something to drink. She then helped her stand and walked with her to the next village and stopped in front of their small house.

"Where are you from?" the woman asked. A translator turned the words into English.

"America," Charlotte answered.

"What's that?"

"A country on the other side of the world."

That night, the Americans collapsed from exhaustion. At the end of their trip, Dr. Kamler wrote a report to the Minister of Health about what the people of his villages needed most. When Dr. Kamler asked people he met this question, the answer always came in a single word — one with which Dr. Kamler's team was familiar: beds.
It wasn’t until Dr. Kamler was an intern at LIJ Medical Center that he took the idea of climbing his own mountain seriously. In 1976, he was called to the bedside of a man who had fallen during a climb in New Hampshire. Dr. Kamler was about to take a year off to drive west in a Dodge van he’d converted into a camper. He’d spent a lot of time talking with the climber, who handed him the name of an instructor, should he ever want to learn how to scale mountains. The doctor went home and put the guy’s number in his desk, where it remained for years.

He brushed it off on a whim when a planned vacation was pre-empted by his father-in-law’s illness. With a weeklong stretch of time before him, Dr. Kamler dialed Jim Dunn, the instructor, and made plans to meet him in New Hampshire. By the time Dr. Kamler’s car rolled into the state, Mr. Dunn was prone at home, his ankle cast in plaster. He’d fallen off a mountain and would be out of commission for weeks. But he picked up the phone and called a friend named Rob Blatherwick, a Green Beret with a penchant for poetry in addition to some fierce mountain-climbing skills. Mr. Blatherwick taught Dr. Kamler how to climb the White Mountains of New Hampshire.

AN UNPLANNED RITE OF PASSAGE

A few months later, Mr. Blatherwick invited his student on a mountain climb in Peru. It wasn’t just that he liked Dr. Kamler or that he felt that the young man was ready for mountain warfare. The team needed a doctor, and it didn’t hurt that this one was a chief resident in orthopedic surgery who moonlighted in the Emergency Department.

“I thought of everything that could have gone wrong during the trip,” Dr. Kamler recalled.

He made index cards, 20 in all, and on them jotted down what he would do if someone developed athlete’s foot or suffered massive brain trauma. Whatever happened, he would be prepared. This was before the days of wilderness medicine.

They hadn’t even reached the mountain when they witnessed a truck toppling off the road, spilling a dozen people, goats and produce. They stopped to help and after setting a few broken bones (and sewing up a laceration in a goat’s neck), they made camp with the injured and, on the following day, took several of them to a local hospital in Lima.

This experience gave the doctor his first taste of mountain medicine. They climbed a 19,000-foot mountain and afterward heard that they had become celebrities on local radio and television: the Americans who saved the locals. The timing couldn’t have been scripted more perfectly, Dr. Kamler said. The president of The Explorers Club was in Peru and invited the mountain medicine man to join that esteemed group.
FOOD 101

by Jamie Talan

Food, glorious food ... cold chicken and jello. Judy Porcari and Carol Vorperian have heard it all: the jokes, the low grumbling and, of course, the louder complaints.
Ms. Porcari and Ms. Vorperian, both registered dietitians, run the Nutrition and Dining Services Department at North Shore University Hospital (NSUH). However, food is not what it used to be, and their jobs now extend way beyond the kitchen.

Every day, registered dietitians work the floors of the hospital, talking with nurses and doctors about diets and nutritional support for patients. They work behind the scenes — actually, in the basement — to procure ingredients so their chefs can make seaweed soup for a Korean mother in the labor and delivery unit, bake gluten-free cookies for another patient, and stock up on Greek yogurt and goat’s milk to cater to the demands of a health-conscious clientele.

They consult on cases of malnutrition. They offer guidance and education to patients who must learn a healthier way to eat after a heart attack and to cancer patients who have lost taste sensation and appetite. Physicians and nurses generate referrals in electronic medical records, and each case is handed over to one of the 18 registered dietitians at the 28 nursing stations at NSUH. A similar system is in place at LIJ Medical Center and other hospitals in the North Shore-LIJ Health System. Usually, health professionals ask for consults, but it is not uncommon for patients or their families to request them directly.

North Shore-LIJ’s dietitians receive about 1,700 consult requests per month.

“Registered dietitians are an important part of making a patient’s nutritional problems obvious,” Ms. Vorperian said. “If a patient is not eating, a registered dietitian calls the patient’s doctor. Most health practitioners concentrate on stabilizing a patient is not eating, a registered dietitian calls the patient’s doctor. Most health practitioners concentrate on stabilizing patients and sending them home. Nutrition and dietary needs can be overlooked.”

SERVICE WITH A SIDE of EDUCATION

The registered dietitian also educates patients about proper food choices. Many cancer patients have a hard time eating, and dietitians discuss food preferences and get them whatever they want to eat — even if it is the same for three square meals.

“Their recovery depends in large part on how well they eat in the hospital,” Ms. Porcari said.

Patients’ food habits generally do not change in the hospital. The stays are too short. However, dietitians work with patients before discharge to ensure that they have some basic knowledge of the “what” and “why” of selecting nutritious foods.

“It’s all about the food,” Ms. Porcari said. “Hippocrates said that food is the first medicine. Things have not changed. The course of illness and treatment can change a person’s appetite, and our role is to work with that diminished appetite and help turn it around.”

The team meets regularly to discuss food trends, cultural differences in food choices and ways to simultaneously meet dietary preferences for patients in the hospital’s 850 beds while also meeting those patients’ nutritional needs. Dietitians work on liquid supplementation and talk with physicians when a patient may need a feeding tube to ensure adequate intake. They round with the staff and have a good eye for what is going on with the patient. They are adept at spotting problems and getting patients to talk about why they are not eating. They work with researchers on studies involving nutrition and supplementation and with medical staff to continuously review policies to help ensure patients’ nutritional needs are met.

PROFESSIONAL PREPARATION

Eight years ago, the team started an internship program for students training to become dietitians. Ten students per year are accepted into the program, which is accredited by the Accreditation Council for Education in Nutrition and Dietetics. The nine-month supervised practice program includes five months of clinical rotations: one month in a community hospital and four months at NSUH, LIJ Medical Center or Lenox Hill Hospital. The interns see patients on all the floors, work with all levels of healthcare providers and subspecialty services, and conduct in-service case studies.

By the time students finish the program, they know how to assess patients’ nutritional needs and talk with them about their diets. The internship also includes food-service management skills such as financial management, completion of a business plan, purchasing, food production, food-delivery systems, personnel management, and computer applications in food service and nutrition.

Ms. Porcari said that nutrition and dining services constantly change with the world outside the hospital. She and her colleagues know everyone’s a critic, especially about food. They ask patients to fill out questionnaires about their food preferences, and patients now have more menu options than ever before. Long gone are the days of stews, roasted chicken and meatloaf every night, Ms. Vorperian said.

“[Our role] is to give patients what they need and what they want,” she added, noting that the department has coordinated elaborate celebrations at bedside, including engagements and weddings for patients too sick to postpone their dreams. “The focus is always on the patient and what we can do to exceed his or her expectations.”
America has a diversion problem, which includes using prescription medications for recreational use. The largest age groups who abuse prescription medications are 18- to 25-year-olds, followed by adolescents and older adults. According to the National Center on Addiction and Substance Abuse at Columbia University, 80 million Americans abuse or misuse prescription medications and 40 million are addicted.

"Literature in the 1970s stated that patients taking pain medications as directed by their physicians would not develop addictions, but we now know that as many as 30 percent of patients may become addicted even when they take such medications legitimately," said addiction specialist Michael Delman, MD, senior vice president at Southside Hospital. "A lack of understanding and training became an issue with providers jumping on the bandwagon to eliminate patients’ pain. Physicians should be trained, add patient screenings to office visits and educate patients about potential risks associated with medications to prescribe them effectively."

PRESCRIPTION FOR SUCCESS

The recurring challenge of societal and government oversight in the prescription of opiates, in particular, can also restrict their distribution to the patients who really need them. Seniors’ complex disease processes present legitimate reasons for the use of pain medication, but practitioners are caught in the middle.

"Physicians should not hesitate to prescribe these pain medications to appropriately selected patients for fear of regulation," said Maria Torroella Carney, MD, internist, geriatrician and director of community-based geriatrics at North Shore University Hospital, Glen Cove Hospital and LIJ Medical Center. "When used with great respect and caution, pain medications have a real purpose and help patients who are suffering. Understanding and treating any underlying disease processes are critical to helping ensure pain medications are prescribed accurately and for the proper duration."
Be Part of the Solution

North Shore-LIJ physicians can train in screening, brief intervention and referral to treatment (SBIRT). SBIRT is a reimbursable screening process that providers can add to a typical office visit to help educate patients and prevent risky behaviors and prescription drug abuse. Training is available online and from the New York State Office of Alcohol and Substance Abuse Services.

APPETITE FOR DESTRUCTION

America’s proclivity for opiates and the potential for abuse dates to the 19th and early 20th centuries. Opium was legalized for importation to the United States in 1856 and then banned by the US Congress in 1905 to counter the rise in addiction and abuse. The Harrison Narcotics Tax Act of 1914, which required physicians and other prescribers to pay a tax and register with the government, further curtailed access. This regulation, in turn, spurred the creation of a black market for opiates that still exists.

CHANGING HISTORY

The most recent data available show prescription painkillers were involved in the deaths of 14,800 Americans in 2008. The New York State Senate Committee on Health has addressed the prescription drug crisis by combating the abuse of highly prescribed opiates such as Lorcet, Lortab, OxyContin and Tramadol. The committee, chaired by Senator Kemp Hannon, recommends a comprehensive approach that includes:

• Educating healthcare providers and the public regarding the dangers associated with prescription painkillers
• Getting prescription drugs off the streets
• Monitoring prescriptions of painkillers
• Prosecuting dealers
• Rehabilitating addicts

STopping Pain Before It Starts

Advances in anesthesia and alternative options for pain relief expand practitioners’ choices, which benefits patients. Transdermal patches, intrathecal pumps and spinal cord stimulators can relieve pain while helping patients avoid the pitfalls of oral, intravenous and intramuscular delivery methods. Use of pre-emptive analgesia, such as regional blocks, helps stop pain before it gets out of control, limiting patients’ needs for prescription painkillers long term.

“The Pain Management Service involves specialists from anesthesiology, neurology, neurosurgery, physical medicine and rehabilitation working together to identify best practices, guide development of regulations and speak up about how best to implement them, and make ourselves available for education through grand rounds, lectures and other means,” said John Di Capua, MD, senior vice president of anesthesiology for the health system, chair of anesthesia at North Shore University Hospital and LIJ Medical Center, and chair of anesthesiology at the Hofstra North Shore-LIJ School of Medicine. “Pain is among the symptoms that most frequently cause people to seek medical care. Referral to a pain medicine practitioner gives patients with chronic pain access to the tools they need to return to their previous functional statuses.”

by Gabrielle Fernandez
IT TAKES A VILLAGE of Surgeons

EVERY PARENT’S NIGHTMARE — A CHILD IS LIFTED FROM THE WRECKAGE OF A SEVERE ACCIDENT THROUGH A HOLE IN THE CAR’S ROOF, HER AORTA IS NEARLY SEVERED, AND SHE COULD BLEED TO DEATH AT ANY MOMENT — TURNED OUT TO BE EVERY PARENT’S MIRACLE. THE CHILD, A TEENAGER NAMED ALICIA SEYMOUR, SURVIVED AGAINST ALL ODDS.
Her aorta was elastic enough to withstand the injury, and the right set of surgeons was on hand that night and the next morning to mend the aorta, repair the ruptured diaphragm that had shifted north in her chest, and set some broken leg bones. Most people with severe injury to the major artery die at the moment of impact. In the rare event that a person makes it to the hospital, surgeons prepare for open-chest surgery and a cardiopulmonary bypass. But the last few years have brought a shift to less invasive techniques, and Alicia’s transected thoracic aorta summoned a call to Mark Kissin, MD, a vascular surgeon at North Shore University Hospital and LIJ Medical Center.

The page came after midnight, and Dr. Kissin immediately left for the hospital after hearing about Alicia’s injuries. She had been transferred to Cohen Children’s Medical Center of New York from a local hospital, but Dr. Kissin knew that her condition would not remain stable for long without surgery to repair the aorta.

On the way to the hospital, Dr. Kissin was already ringing up others, including the operating room (OR) staff and a representative from the company that makes the covered stents he would need for the procedure, to get started on setting up for the case. The stents are generally not used in pediatrics or in trauma and are premade in certain sizes, so Dr. Kissin needed to be sure that an appropriately sized device was in the OR by the time he pulled up to the hospital. Vincent Parnell, MD, was also standing by in the event the case would need to be converted to open-chest surgery.

Alicia was awake and alert, which Dr. Kissin didn’t expect but was happy to see. She was badly bruised. He met her parents and discussed their daughter’s condition and the surgical plan. He went over to the nursing station and pulled up the computed tomography scan. It looked scary: The location of the injury to the aorta was not easy to access, and a pseudoaneurysm, otherwise known as a temporarily contained rupture, was evident. The surface of the aorta was irregular, yet Dr. Kissin thought he could use endovascular techniques to mend the damaged area.

**CAREFULLY CHOREOGRAPHED**

This was not an ordinary case. The OR required special equipment, and other surgeons who would tend to Alicia’s diaphragm and broken legs also helped get things going. A vascular surgery fellow, Ankur Chawla, MD, stood by as well. The team used X-ray guidance to navigate wires and catheters up from the groin into the aorta. Dr. Kissin made the decision that he would not use blood-thinning agents because of Alicia’s other injuries, and he prayed she would not form a clot around the instrumentation required to implant the stent.

Accessing Alicia’s damaged aorta required that the surgeons navigate through difficult terrain. The area around the injury was thin and frail like old lace, and Dr. Kissin worried that the procedure itself could cause a rupture. What’s more, the injury was close to the left subclavian artery in the chest. This artery supplies blood to the left arm and the brain. Alicia entered surgery without brain damage, and Dr. Kissin didn’t want to take the risk of getting too close to the artery and precipitating a problem. After carefully traversing the injury site, Dr. Kissin deployed the stent, only partially occluding the subclavian artery to provide adequate blood flow while ensuring sufficient coverage of the aortic tear.

“It’s like patching a tire from the inside,” he said. The stents lined up on the inside of the artery and created a smooth surface. An angiogram of the aorta demonstrated a good result. Upon preparations to close the access site in the left groin, while pulling the catheters and wires out, Dr. Kissin identified a clot that was obstructing blood supply to the left leg. He used a special balloon to retrieve the clot and restore blood flow to the leg. A small dose of blood thinner was also required at that point. Administering the blood thinner at the end of the procedure meant the other doctors on hand for the next few fixes would not be able to complete their jobs until later that morning.

Andrew Hong, MD, director of the Pediatric Surgery Training Program, admitted Alicia to his service to fix her diaphragm. He was also amazed that the girl had survived the injury to the aorta. She was in the lucky two percent, he said. “Her youth saved her,” Dr. Hong said.

His surgery — repairing a 12-centimeter-long hole in the muscle — was followed by a surgery by orthopedist Robert Bernstein, MD, who placed a rod into Alicia’s tibia to mend a fracture.

“The communication all around was terrific that night and the next day,” Dr. Bernstein said. “We had a plan and an order of doing things that was safest for the patient. Our part at the end was the icing on the cake.”

Indeed, Alicia’s father Roy Seymour is still amazed that his daughter survived her injuries and a few months later is doing great.

“It is a miracle that she is alive,” Mr. Seymour said. “I think, I hope, she understands how life can be taken away in an instant and how fortunate she is.”

Alicia remained on a ventilator for a week after her surgeries. When she had to cough, she motioned to her father to grab a nearby pillow and hold it on her chest to ease the pain. With the worst behind them both, thanks to a village of surgeons, that was Mr. Seymour’s job: to wait and pray and hold a pillow to Alicia’s chest.
EUGENE KRAUSS, MD, IS A BORN TINKERER. AN AEROSPACE ENGINEER BY TRAINING, DR. KRAUSS GRADUATED COLLEGE AT 18 AND WENT ON TO START TWO SUCCESSFUL COMPANIES BY AGE 25. HE LOVED WORKING WITH HIS HANDS, MAKING TOOLS THAT SOLVED ANY NUMBER OF PROBLEMS ABOARD AIRPLANES AND ROCKETS, AND HE SOLD HIS INVENTIONS WORLDWIDE. BUT BY THE TIME HE WAS 32 AND RAISING THREE YOUNG CHILDREN ON LONG ISLAND, HE REALIZED HE WANTED TO DO ANOTHER KIND OF BUILDING.
He wanted to work with bone and metal as an orthopedic surgeon. The specialty made all the sense in the world to him. Dr. Krauss could build tools, mend broken things and solve any number of problems in the human body. He was still in medical school when his first engineering problem presented itself.

He was studying under Charles Neer II, MD, an orthopedic surgeon whose work on shoulders and elbows is now legend, and Dr. Neer had a problem. He was pioneering a total shoulder replacement and was frustrated by a stem sticking out of the shoulder. Dr. Krauss worked with diamond tools at his machine shop and thought they would be just what the surgeon needed. Orthopedics, after all, is as much a mechanical field as engineering. He brought a diamond tool in, and the surgical team shaved and smoothed the stem that was protruding through the bone.

PAST MEETS PRESENT

Dr. Krauss, who now directs orthopedic surgery at Glen Cove Hospital, has found his past life building parts for the aerospace industry invaluable to his work in surgery. Treatment of traumas and fractures demands plates, screws, and the perfect mix of bone support to keep the joints working and getting bodies moving again. Titanium used in space in the 1960s made its way into the orthopedic operating room in the 1980s. And Dr. Krauss brought root-cause analysis to the practice of replacing damaged joints. Checklists filled with hundreds of steps go into successful joint replacement. “You break down the whole process into quality-assurance steps,” he explained, borrowing concepts from his aerospace work. “It’s a team effort. In the aerospace industry, when we manufactured 4,000 gyroscopes monthly, every one of them needed to be perfect. So you break down the production into little steps, and each one needs to be quality assured. That’s how you can ensure a reliable and reproducible successful outcome.”

Dr. Krauss, now 66, sees himself as the conductor leading an orchestra by making certain that everyone’s performance in the operating room (OR) is perfect.

He has developed an OR efficiency model that works well. About 1,000 people pass through Dr. Krauss’s operating room each year. That volume roughly equates to a dozen patients a day, three times a week. Hip replacements take around 40 minutes, while knee replacements require about 35 minutes. As Dr. Krauss finishes with one patient, his team is in the next operating room preparing another. Four operating rooms work in tandem. He begins around 7 a.m. and finishes his last case by 2 p.m.

STREAMLINING THE SURGICAL PROCESS

In 2008, the British National Health Service invited Dr. Krauss to help the organization establish similar efficiency models in the nation’s total joint replacement programs. He and his colleagues worked with surgical colleagues at two large hospitals in the United Kingdom to implement his surgical efficiency system. At the time, there was a seven-year wait for a hip or knee replacement. They are now working well within an 18-week window set aside for elective surgeries.

In addition to creating an OR efficiency model to repair damaged joints using titanium implants, screws and metal plates, Dr. Krauss has also designed and developed several implants. Both his efficiency model and his joint replacement techniques have gained attention worldwide.

“[Orthopedic surgery] is a dynamic field,” Dr. Krauss said. “The number of patients requiring hip and knee replacements is rising. People are living longer, and the demand is greater.”

While most of his patients who require total joint replacement are between ages 65 and 75, he’s had a growing number of people in their 90s as well as an increasing number of young, active patients.

About a million total joint and knee replacements occur in the United States each year, and by 2025, experts anticipate that number will rise to four million.

ON A PERSONAL NOTE

“Everyone arrives with his or her life story, and I love listening to my patients,” Dr. Krauss said. He enjoys the patient contact as much as the hands-on metal-and-bone work. He’s been a surgeon long enough to see a few generations of hips and knees.

He also donates his surgical skills to people in developing countries. Dr. Krauss and his wife, Carmel, started a charity — the Krauss Foundation for Health and Humanity — that allows him to travel to developing countries to offer surgical services to people crippled by damaged joints. Accompanied by another surgeon, two physician assistants and two nurses, Dr. Krauss goes into high-risk communities and conducts around 15 to 30 joint replacement procedures during each trip. The group has been to Ghana several times and Equatorial Guinea.

Dr. Krauss is convinced that the disability caused by damaged joints leaves scars on the mind and body, affecting the patient’s psychological as well as physical well-being. “There is nothing like helping people walk again,” Dr. Krauss said. “Joint replacement surgery allows patients to regain their independence and become active members of society. It’s good value for the healthcare system and our society, and it’s good value for the healthcare system and our society, and it’s good value for the healthcare system and our society.”

TABLET EXCLUSIVE: WATCH A VIDEO ABOUT DR. KRAUSS’ STORY.
A critical piece of the Patient Protection and Affordable Care Act stipulates the adoption of an electronic health record (EHR). Without EHR, practices will be penalized by lower reimbursements. The catch-22 of EHRs is that, while many health systems and hospitals can afford to implement EHRs and prove their effectiveness, smaller physician practices don’t have the capital needed to invest in implementing an EHR — a process that often requires hiring a third party to navigate the myriad meaningful-use criteria.

“Private practice physicians could not have predicted 10 to 15 years ago how rapidly the healthcare environment would change,” said Deborah Johnson-Schiff, RN, vice president of strategy and business development for Physician and Ambulatory Network Services (PAANS) at North Shore-LIJ. “As a myriad of federal regulations are imposed and reimbursement continues to decline, many practices simply cannot afford to put in place the infrastructure required to respond.”

EMERGING MODELS

New concepts in healthcare delivery are being developed on a national level with the Centers for Medicare and Medicaid Services. One of these concepts is accountable care organizations (ACOs). If the ACO delivers population-based treatment with quality and cost-efficiency (based on quality metrics), the ACO receives a reimbursement supplement. Among the hurdles to becoming an ACO are stringent criteria, the long wait list and the fact that smaller practices often don’t have enough primary care physicians to care for the required minimum of 5,000 Medicare patients.

Another option for physicians is to transfer to hospital-based employment. This is becoming a more popular choice, according to recent figures. One 2011 study by Accenture Health predicts that less than one-third of physician employment will occur in private practice by 2013 — a significant drop from 57 percent in 2000. The advantages of hospital
employment are more manageable workweeks and increased stability. As a result, private practices have seen an unprecedented spike in employee turnover rates in the last few years.

However, there is a middle road. Physician practices seeking infrastructure support and sustainability are increasingly choosing to integrate into larger health systems. Case in point: North Shore-LIJ has seen an increase in private practice integration in recent years. As the third-largest secular nonprofit health system in the United States, North Shore-LIJ employs approximately 2,400 physicians. That number is up from fewer than 1,600 only four years ago, as the system has added approximately 250 physicians each year — many of them from pre-existing practices. While the pressures of healthcare reform continue to push physician practices to the tipping point, it seems many local practice owners are turning to North Shore-LIJ as a strategic ally.

A PARTNER TO THE PRIVATE PRACTICE

The streamlined process for private practice integration at North Shore-LIJ allows practices to retain a level of autonomy while bolstering their stability as they use the health system’s infrastructure and resources. Integrated practices also benefit from:

» competitive compensation and benefits packages;
» enhanced coordination of care through the health system’s network of hospitals and physicians;
» greater employee retention; and
» improved communication and documentation through the health system’s integrated EHR.

“Physicians become part of a quality organization that is ready to adapt to future changes in healthcare delivery,” Ms. Johnson-Schiff said. “As we partner with physicians who have established practices, together we become part of the fabric of the individual communities we serve. This is a tremendous benefit.”

Stitching the Seams of Physician Integration

A large part of the effort to restructure the North Shore-LIJ Medical Group included the creation of Physician and Ambulatory Network Services (PAANS) three years ago. PAANS is the internal network that supports and upholds the Medical Group. PAANS has been instrumental in developing the streamlined integration process that seamlessly engrafts physician practices from contract execution to the 90-day go-live date. North Shore-LIJ has hired practice transition experts specifically to help practice owners navigate the integration process on a full-time basis.

“We integrate physician practices into the system not only operationally and financially, but also culturally,” Ms. Johnson-Schiff said. “The culture of North Shore-LIJ is one of patient-focused accountable care. Our goal is to foster regional relationships that stand at the heart of this kind of care.”
A female patient from an Eastern European background may be reluctant to admit she is experiencing pain for fear of displaying ‘weakness.’ A new parent of Latin American heritage may dislike members of the healthcare team gushing over his or her newborn because he or she may perceive such behavior as an attempt to cause problems for the child in the future via an ‘evil eye.’ The best ways to handle such situations are to have a basic understanding of various cultures and to foster open communication without bias when interacting with patients.

— Tochi Iroku-Malize, MD, chair of family medicine at the North Shore-LIJ Health System and the Hofstra North Shore-LIJ School of Medicine
ACKNOWLEDGING THAT EVERY PATIENT REPRESENTS A UNIQUE MEDICAL CASE IS A LESSON INGRAINED IN PHYSICIANS FROM THEIR EARLIEST DAYS OF EDUCATION AND TRAINING. PRACTICING MEDICINE IN A WAY THAT RESPECTS THE CULTURAL UNIQUENESS OF DIFFERENT PATIENT GROUPS, HOWEVER, MAY BE A LESS FAMILIAR CONCEPT.

The North Shore-LIJ Health System serves an area that is home to millions of people from hundreds of cultural and linguistic backgrounds — all with different values and beliefs that influence what they expect from medical care. Experience and a willingness to learn about other cultures have taught many North Shore-LIJ physicians important lessons about practicing culturally sensitive care. For example, Tochi Iroku-Malize, MD, chair of family medicine at the North Shore-LIJ Health System and the Hofstra North Shore-LIJ School of Medicine, recommends physicians always ask patients how they would like to be addressed.

“In some cultures, it is considered insulting and demeaning to call someone with whom you are unacquainted by his or her ‘informal’ first name,” she said.

Jill Rabin, MD, obstetrician/gynecologist at LIJ Medical Center and North Shore University Hospital, carefully considers her appearance and actions when making house calls to see Orthodox Jewish patients.

“I wear a dress instead of pants, cover my elbows and knees, and never shake hands with men,” she said.

“Healthcare professionals must be aware of their personal biases and work diligently to eliminate them,” said Joanne Turnier, RN, program manager in the Office of Diversity, Inclusion and Health Literacy at North Shore-LIJ. “When they do so, they realize the importance of treating the whole patient as the individual searches for meaning in the experience of his or her illness. Most importantly, this approach optimizes safe, quality care and promotes positive health outcomes.”

TO ACCESS CULTUREVISION™ — a resource containing information about communicating with, and better understanding, patients from more than 40 cultural groups — utilize HealthPort (HealthPort > Cultural Resource).

TO ACCESS QUALITY INTERACTIONS® — an e-learning program that provides case-based instructions on cross-cultural communication and care and assists the learner in developing his or her knowledge and skills while enhancing effective communication — scan this code with your smartphone.
ONE OF THE

Hardest

Jobs

by Jamie Talan
Dr. Siegel listened to their story and agreed with their plan. And with that, she ordered the removal of the feeding tube and IV so the child’s parents and three-year-old brother could have their time. It was 2002 and the beginning of Dr. Siegel’s journey into the world of pediatric palliative care.

Today, Dr. Siegel works at the Cohen Children’s Medical Center of New York as director of the Pediatric Palliative Care Service. Her small basement office is the setting of many conversations with attending physicians, nurses and families having a difficult time coming to terms with a sick or dying child. Dr. Siegel works closely with Rev. Amy Karriker, a chaplain who has spent her 20-year career at children’s bedsides. When called on a consult, which could be several times a week, Dr. Siegel works with the child’s primary care team to assess the situation and make recommendations about symptom management.

The palliative care team manages pain and other symptoms, talks with families about the child’s condition and helps them make decisions about how to proceed with the choices surrounding treatment. They assist families when time for discharge comes and walk them through referrals to hospice or home care.

Dr. Siegel also spends a lot of time talking with colleagues about the Pediatric Palliative Care Service so they understand how it can help them manage very difficult cases.

“Some doctors are afraid that we will recommend a DNR on every child,” she said. “That is just not what palliative care is about. We help the team set goals for care. We work with families to address the benefits and burdens of care and to help them make informed decisions about their children.”

The service has about seven patients at any one time, according to Dr. Siegel.

“There can be a lot of moral distress for staff involved with these cases,” she added, “but families have to write their own stories and feel good about their decisions.”

CONNECTING PATIENTS AND PROVIDERS

The palliative care team was recently called into a case involving the family of a teenager with severe heart problems. The same day as that consult, the team worked with other medical personnel to assess a 13-year-old patient on the autism spectrum who had been on a ventilator following a near-drowning event. The Child Life team was also brought in to help talk with the families and prepare the children for any procedures they would need.

Members of the palliative care team round with the medical team every day. They also schedule meetings for patients’ families to discuss issues surrounding their loved ones. They spent a significant amount of time listening to concerns from the medical staff as well.

“One of the hardest things for medical staff to learn is what is right for the child and the family,” Dr. Siegel explained. “Some kids who are neurologically impaired have a quality of life that is perceived as good. How we see the child in an acute situation in the hospital is not how he or she might be at home. We need to be mindful of these differences and listen carefully to the family.”

When Dr. Siegel listens, she often hears how families want to bring their child home to die. She and her colleagues do everything they can to honor the parents’ wishes. They recently contacted hospice so that an infant born with a fatal disease could go home with her parents and siblings.

“Families are so grateful that they can bring their child home,” Dr. Siegel said.

If a child dies, the family is referred to a bereavement program called Center for HOPE, run by social worker Susan Thomas.

“Kids will be sick no matter what I do, but if I can make them feel better or more comfortable, then I feel like that’s a good day,” Dr. Siegel said. “Many pediatricians are not comfortable talking with families about death and dying.”

She added that families who receive help in making such critical decisions about how their children will die are less likely to experience complicated bereavement after their children are gone. Dr. Siegel has learned to say these words carefully yet straightforwardly: “We think he/she is going to die.”

“Until I say those words, the family still holds onto hope,” she said. “Telling them what we know is important, even if they are not ready to hear it.”

Still, not a day goes by that she is not bothered by a case.

“When it stops bothering me,” she said, “I will retire.”
Their children, part of the baby boomer generation, have grown up and in some cases moved away from Long Island, yet many of those early settlers stayed and set out on a new and equally brave path. They are among the nation’s suburban elderly.

Many Long Island seniors have turned in their car keys and depend on the kindness of others to get around. After burying spouses and friends, they may have had to learn to deal with social isolation. They often face mounting health issues. How are these seniors coping? Is suburbia changing to meet the growing demands of the oldest of the old among us?

These are some of questions vexing Renee Pekmezaris, PhD, and her colleagues at the North Shore-LIJ Health System and the Long Island Center for Health Policy Studies. They have set out across Long Island to ask people age 65 and older how they manage their lives and what strategies they employ to age well in suburbia. Their survey, funded by a grant from the New York State Department of Health, was conducted in large part to also determine how seniors’ health affects the care they receive and to identify gaps the health system should address to meet the needs of patients and communities. The survey is also instrumental in mapping out strategies for the growing number of Long Islanders who are staying put in their retirement years.

ON A MISSION

As a health services researcher, Dr. Pekmezaris, vice president of community health and health services research for the North Shore-LIJ Health System Department of Population Health at the Hofstra North Shore-LIJ School of Medicine, is interested in the challenges that face older people living in the suburbs. On Long Island, public transportation options are limited. As a result, people in poor health can find it difficult to keep up with their doctor appointments and pick up their prescription drugs. Both problems can have serious health consequences.

But no one really knew what was going on in homes across Long Island until Dr. Pekmezaris sat down to design a study and ask questions. The study was conducted over two time periods. During the first stage of the study, Dr. Pekmezaris and her collaborators identified a few thousand community-residing older people and began calling their homes. They dialed 3,808 phone numbers an average of nine times per number at various hours of the day and early evening.

In the end, the sample consisted of 842 people older than 65. Because people age 85 or older often have different health-related needs than their younger counterparts, the researchers incorporated respondents who were older than 85 in the second part of the study. They did the same for older minorities, targeting a diverse ethnic sample including 111 African Americans, 99 Asian Americans and 99 Hispanic Americans. The researchers asked study participants about transportation, medical issues, social supports, economic factors and their ability to take care of themselves.

DIVING INTO THE DATA

The average age of the sample was 76; almost half of participants were between ages 65 and 74, and 37 percent were between 75 and 84. Fifteen percent were 85 or older. Twenty-five percent said they had a bachelor’s or higher degree. Most said they had lived in their communities for at least 30 years, and 67 percent reported living with at least one other person (only three percent lived with their children). Three of four respondents said they lived near a grocery store.

Eighty percent of the group said they were retired. Their incomes
It may seem like the days when doctors made house calls are long gone. However, the past is reinventing itself with a growing number of new initiatives to treat people — again — in the comfort of their own homes. Earlier this year, the North Shore-LIJ Health System joined one of 16 hospitals across the country in a federally funded demonstration project to test the efficacy of house calls for elderly patients who would normally be seen in the health system’s hospitals and outlying facilities.

Growing evidence suggests that house calls improve health outcomes, which in turn reduce hospital costs and allow frail people to remain independent and healthier in their communities. The project, called Independence at Home, is under the direction of the Center for Medicare & Medicaid Innovation, which is part of the Centers for Medicare & Medicaid Services. Physicians and nurse practitioners routinely make house calls to patients who otherwise would have been seen in doctor’s offices or who are at high risk for utilizing emergency rooms for their care. Independence at Home was created by the Patient Protection and Affordable Care Act. If it works, it could change the way healthcare is delivered in this country.

North Shore-LIJ has had the North Shore-LIJ HouseCalls program for about five years, and about half of those patients treated at home will be eligible for participation in the federal demonstration project. Program advocates aim to inspire healthcare providers to deliver high-quality care at home to reduce hospitalizations. Kristofer Smith, MD, medical director, and Merryl Siegel, regional executive director of post-acute care services, are overseeing the project.

“The goal of Independence at Home and the health system is to deliver patient-centered, holistic, respectful medical care to all patients — particularly those in the last few years of life,” Dr. Smith said. “Patients will tell you that they want to be home.” Practices participating in the project will rely on electronic health record systems. Physicians and/or nurse practitioners will be available to patients around the clock. To be enrolled in the project, patients must have at least two chronic conditions, have been unexpectedly hospitalized at some point in the last year and have been seen in acute or sub-acute rehab centers during that same time period. These are people who also need help with activities of daily living.

For more information about North Shore-LIJ’s Physician House Call Program, call 516-876-4100 in Nassau/Suffolk or 718-830-4327 in Queens.
A LOOK AT THE DATA

IN A SURVEY OF 842 PEOPLE OLDER THAN 65, STUDY PARTICIPANTS WERE ASKED ABOUT TRANSPORTATION, MEDICAL ISSUES, SOCIAL SUPPORTS, ECONOMIC FACTORS AND THEIR ABILITY TO TAKE CARE OF THEMSELVES.

» NEARLY ALL OF THE SENIORS SAID THEY TOOK AT LEAST ONE PRESCRIPTION DRUG.

20% reported having diabetes
10% were categorized as obese

1 in 5 has had cancer
18% have had serious falls
57% reported being treated for hypertension

>80% drive their own cars

1/3 have heart disease

Most seniors on Long Island said they get around rather easily.

Long Island is a good place to grow old, but we need to address issues such as transportation and care at home for those seniors who have a hard time accessing what they need."

— Renee Pekmezaris, PhD, vice president of community health and health services research for the North Shore-LIJ Health System Department of Population Health at Hofstra North Shore-LIJ School of Medicine