



Evanston Hospital

Glenbrook Hospital

Skokie Hospital

A health and lifestyle publication from NorthShore University HealthSystem

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Tiny Cameras Help Doctors Tackle a Hardto-Reach Tumor

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Talented NorthShore Surgical **Team Awakens** a Young Woman's Face

Research Sheds Light On the Earliest Stages of Cancer

By Martha Floberg

orthShore University H e a I t h S y s t e m (NorthShore) is gaining new insights into the beginning stages of cancer with the newest generation of diagnostic tools—powerful light-scattering technology that helps physicians look at the building blocks within cells and measure the earliest signs of cancer 20 to 50 times smaller than what current screening techniques can detect.

"The way a cell scatters light tells a lot about its composition,

especially subtle precancerous changes in microstructures that you can't see with a conventional light microscope," said Hemant Roy, MD, a NorthShore gastroenterologist.

Nanoarchitectural changes within cells are the earliest events in cancer. But even profound changes in internal structures, such as mitochondria and ribosome, appear normal with light microscopy.

"The approach is analogous to flying over an earthquake zone at 10,000 feet," said Dr. Roy. "At that height, the houses look okay, but at street level you can see the cracks in the bricks."

In partnership with Vadim Backman, PhD, professor of Biomedical Engineering at Northwestern University, who developed this novel technology, Dr. Roy is spearheading clinical and biological studies.

"We began research with this highly sensitive light technology at NorthShore nearly 10 years ago for patients undergoing colo-



Dr. Hemant Roy (left) and Dr. Thomas Hensing believe in the power of light to detect the earliest stages of cancer. Their ongoing research is having a direct impact on patient care.

noscopies to screen for cancer," he said.

Today, Dr. Roy is applying the technology to prescreen for pancreatic, lung and ovarian cancer, along with NorthShore's Thomas Hensing, MD, a lung cancer specialist, and Jean Hurteau, MD, an ovarian cancer specialist. All three doctors hold academic appointments at the University of Chicago Pritzker School of Medicine. The results of their studies at NorthShore translate into significant patient benefits by expanding diagnostic options to better detect cancer and improve care.

"Our Electronic Medical Record (EMR) system helps us identify candidates for these clinical trials, which are enrolling patients at both NorthShore and the University of Chicago," said Dr. Roy. A patient's family and medical histories provide insight into the potential likelihood for certain cancers and help determine whether the candidate meets inclusion criteria.

The new light-scattering technology also

detects subtle changes in normal-appearing cells that are distant from a cancer site. "This is called the 'field effect' and is common in a variety of cancers," said Dr. Roy. "For instance, with nearly 90 percent accuracy the lightscattering probe helps us see a fingerprint of early-stage lung cancer in easily accessible tissue, such as a patient's cheek cells."

NorthShore's pioneering research to develop minimally invasive, highly accurate

screening technology that identifies precancerous changes in what appear to be noncancerous cells addresses an enormous need for more effective early diagnostic tools. Helping physicians assess a patient's cancer risk at the earliest stages has important implications for patients.

"We envision primary care physicians using this light probe to prescreen patients and personalize care," said Dr. Roy. "At-risk patients would undergo additional cancer screening with conventional tests, but those at lower risk who are unlikely to benefit from screening could avoid unnecessary procedures, such as regular colonoscopies."

If you are interested in participating in one of NorthShore's ongoing clinical trials using light-scattering technology to screen for colon, lung, ovarian and pancreatic cancers, please contact Coordinator Beth Parker at (847) 492-5700 (Ext. 1271).

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CONNECTIONS

Connections is a publication of the Office of Corporate Communications, 1301 Central St., Evanston, IL 60201 PublicRelations@northshore.org.

Editor: Phil Rozen Corporate Communications, NorthShore

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Lake County cardiologists Dr. Tom Mayer (left) and Dr. Brian Shortal offer patients effective alternatives to open-heart surgery. Learn more on page 2.

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FRONT COVER: Jade Bergeron is discovering her newborn smile after a complicated, 10-hour surgery to bring her paralyzed facial muscles to life.

happenings

Blockage Busters

Cardiology Team Offers Innovative Alternatives to Open-Heart Surgery

By Susan J. White

he year 2011 will be remembered as especially momentous for Frank Arcaro and his family. One son got married, his youngest daughter started college, and Arcaro himself avoided a major heart attack and open-heart surgery despite 90 percent blockage in three major coronary arteries.

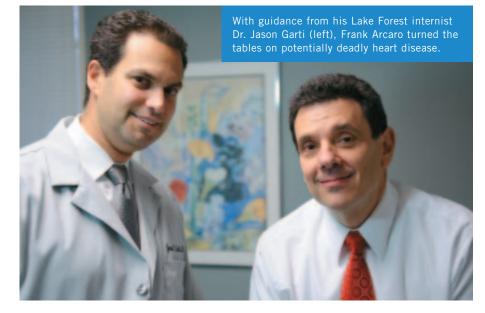
The fact that Arcaro had such severe heart disease came as a complete shock to the father of five from Lake County.

With no known family history of cardiac problems and a healthy lifestyle, Arcaro never considered himself at risk for heart disease. Thankfully, he consulted his physician, Jason Garti, MD, following a week of mild but persistent chest pain.

While Arcaro had a physical and an uneventful stress test just 18 months earlier, Dr. Garti was concerned and secured another stress test at NorthShore Highland Park Hospital and a consult with cardiologist Brian Shortal, MD, who holds an academic title at the Pritzker School of Medicine.

"After only a few minutes on the treadmill, they instructed me to jump off," recalled Arcaro. "I could tell by the look on Dr. Shortal's face it was not going well, and I was stunned."

A diagnostic angiogram revealed the severity of Arcaro's condition. What followed was a team decision between his physicians and interventional cardiologist, Thomas Mayer, MD, who ultimately treated Arcaro's blockages



"The fact that I averted a catastrophe and avoided bypass surgery is a true blessing."

by implanting stents in his arteries.

"Data show that people with wellpreserved heart function do just as well with stenting as with open-heart surgery," said Dr. Mayer. "Frank's heart was very strong, he was a good candidate, and we got excellent results."

Arcaro had two procedures about a week apart to implant six stents. Each time, he returned home to Libertyville after just one night in the hospital. "The fact that I averted a catastrophe and avoided bypass surgery is a true blessing," Arcaro said. "I am grateful to Drs. Garti, Shortal, Mayer and the entire NorthShore team."

In retrospect, Arcaro said he had felt fatigued and had less energy than usual before he contacted Dr. Garti but chalked it up to being over age 50; work pressures; and a busy, full family life. "I felt better almost immediately after the procedures," he added. Arcaro now takes medication to manage his cholesterol, exercises more rigorously and has modified his diet. "I really see, feel and advocate for the benefits of a synergistic lifestyle—doctors, exercise, diet and medication, all working in concert," he said. A positive outlook, loving wife and expert medical team leave Arcaro with a bright future, but his doctors agree that he took the most important step by listening to his body and consulting his physician.

"You get to know your patients, and with Frank, I was concerned and wanted to act fast," said Dr. Garti. "I'd rather have 1,000 negative stress tests than miss one positive one."

Dr. Garti, who with his partners in Lake Forest Medical Associates recently joined NorthShore's Medical Group, said access to specialists like Drs. Mayer and Shortal and communication through NorthShore's advanced Electronic Medical Record (EMR) system help him provide the best care to his patients.

Whether you live in Lake or Cook counties, NorthShore offers exceptional and accessible heart care. To find a cardiac specialist near you, please call (847) 492-5700 (Ext. 1272).

NorthShore Team Tackles Tough Tumor

Leading-Edge Technique Uses Tiny Cameras for Greater Precision

By Barb Hailey

Andra Glattly, 78, has keen insight into the phrase, "being in the right place at the right time." A resident of Atkinson, a small town in northwest Illinois, Glattly suffered a stroke in December 2008 while visiting her daughter-in-law in Lake Forest. Following an ambulance ride to a nearby hospital, she was transferred to NorthShore Evanston Hospital for its expertise as a Primary Stroke Center.

There, Glattly benefited from the NorthShore Neurological Institute (NNI), a multispecialty system of care where the most advanced technology and clinical integration are available to treat neurological conditions, including stroke. Evanston Hospital, along with Glenbrook and Highland Park Hospitals, earned the Gold Seal of Approval[™] from The Joint Commission for Primary Stroke Centers, following national standards that can significantly improve outcomes for stroke patients.

During the course of her stroke treatment, an MRI and CT scan revealed a tumor in Glattly's sinus cavity that was very close to her optic nerve and the base of her brain. "If I hadn't had the stroke, they wouldn't have found the mass in my sinuses," said Glattly.

Joseph Raviv, MD, Director of the Sinus Program in the Division of Otolaryngology, Head and Neck Surgery at NorthShore, was consulted on Glattly's case after the tests revealed the sinus mass. Dr. Raviv specializes in endoscopic sinus and skull-base surgery. Endoscopic surgery involves small cameras and surgical instruments that are inserted directly through the nostrils, avoiding the need for incisions on the face or scalp.



"In certain situations, endoscopic approaches to the skull base provide better visualization and more precision to remove tumors compared to external approaches," said Dr. Raviv, who holds an academic appointment at the University of Chicago Pritzker School of Medicine. "We can angle the cameras and view around corners. It's very three-dimensional."

Not every case is amenable to an endoscopic approach, however. Physicians from specialties as diverse as neurosurgery, oncology and radiology consult as an interdisciplinary team to consider several factors, including the exact location and specific pathology of the tumor.

Techniques in endoscopic surgery, as well as skull-base surgery, have greatly advanced in recent years. NorthShore physicians are on the leading edge of these advancements, which are offered at only a limited number of Chicago area hospitals.

Dr. Raviv initially removed a small portion of the tumor for biopsy, which showed malignant, or cancerous, potential. Glattly's case was then presented at NorthShore's weekly Tumor Board, a "meeting of the minds" that includes physicians from surgery, oncology, radiation oncology and pathology. After this consultation, Dr. Raviv removed the remainder of Glattly's tumor.

Glattly has fully recovered from her stroke. And although she admits she "moves a bit slower," she volunteers at her local hospital and continues to enjoy trips with her husband to Lake Forest to visit her daughter-inlaw and grandchildren. She also sees Dr. Raviv annually for checkups and MRIs, and her tumor has shown no sign of returning. "Dr. Raviv's bedside manner is amazing," said Glattly. "Being away from home, I was fortunate to be in such a good hospital with such great care."

Sweet Relief

Nonsurgical Solution for Debilitating Back Pain

By Susan J. White

heila Keeley describes her first meeting with NorthShore's Christine Villoch, MD, as a last-chance effort to avoid back surgery. Today, Keeley remains forever grateful. That meeting not only saved her from an operation, but also led to a transformative relationship and the end of her debilitating pain.

"It was like a miracle," Keeley said of NorthShore Neurological Institute (NNI) physiatrist Dr. Villoch. "I can't say enough about the difference she has made in my life."

A teacher for 30 years, Keeley has led an active life, including years of playing volleyball, exercising and taking care of her husband who battled Lou Gehrig's disease.

Keeley suffers from degenerative disc disease and spinal stenosis, a narrowing of the spinal canal, which is often seen with age and use, explained Dr. Villoch. Over the years, Keeley tried pain medications, physical therapy and muscle relaxants. She found



Sheila Keeley can better keep up with her 4th grade students at John W. Garvy School in Chicago, after receiving pain relieving injections from NorthShore physiatrist Dr. Christine Villoch.

no relief in the face of increasingly incapacitating pain until Dr. Villoch treated her with epidural steroid injections in the spine.

"I can work out, I can lift weights, I can pick up my grandchildren; there's not a thing I can't do," Keeley said. "Dr. Villoch has given me such a gift."

While steroid injections are not a particularly new option, Dr. Villoch said the advances using X-rays and contrast dye—fluoroscopically guided spinal injections—make the procedure far more precise, yielding better results. "Putting the medication directly where the problem is and getting it to the right level of

al therapy and muscle relaxants. She found problem is and getting it to the right level of



Dr. Julian Bailes

Acclaimed Neurosurgeon Joins NorthShore

Julian Bailes, MD, recently joined NorthShore as Chairman of the Department of Neurosurgery and Co-Director of the NorthShore Neurological Institute (NNI), advancing its mission and ongoing commitment to research and clinical excellence.

Dr. Bailes is a leader in neurosurgery, with expertise in cerebrovascular, neuro-oncology and spinal disorder surgeries. Recognized for his research on the dangers of head injuries and concussions, Dr.

Bailes is a founding member of the Brain Injury Research Institute. He is also a former NFL and NCAA team physician and current Medical Director for Pop Warner Football.

the spine is critical to success," she said.

Keeley, who at 61 said she is in better shape today than she was 10 years ago, has been seeing Dr. Villoch a few times a year for the last six years. Although she has a lengthy drive from her home in Glen Ellyn to NorthShore Skokie Hospital, she has no plans to seek other care.

"I believe in Dr. Villoch and won't let anyone else treat me," Keeley said, adding that the entire NNI team of nurses and caregivers add to the positive experience.

Spinal injections can be a good option for those who have had back pain for a long time, particularly older people who may have contraindications for surgery, Dr. Villoch explained.

"As a physiatrist, we take a team approach to getting patients back to a functional level and improving their quality of life as soon as possible," said Dr. Villoch. "It is incredibly rewarding to take away someone's pain."

To learn more about nonsurgical options for treating back pain, please call NorthShore Neurological Institute at (847) 492-5700 (Ext. 1273) or visit northshore.org/bpwin12. 19-year-old Jade Bergeron is learning how to smile due to the talents of a highly specialized team of plastic and reconstructive surgeons at NorthShore.

> Talented NorthShore Team Revives Young Woman's Facial Muscles

She's All

By Susan J. White



or as long as she can remember, Jade Bergeron was aware of what she considered her "disability," yet she never really thought of it as a negative. "It was always described to me as a blessing, and I just thought it was part of who I was," she said. Bergeron was born with a congenital disorder known as craniofacial microsomia, resulting in structure deficiencies and significant muscle and nerve dysfunction on the right side of her face. The disorder compromised her ability to smile and move her forehead. She also was born without a right ear.

Growing up in the south suburb of Frankfort, Bergeron was a good student with a solid circle of friends. She was never overly concerned about how her disability appeared to others.

"As a teen, though, I became more aware of my face and wanted it to be perfect," Bergeron recalled. "When I went away to college, that's when I really noticed it." The transition from living in a small town where she knew almost everyone to attending Illinois State University seemed to heighten her differences.

"I felt like it was the first time I truly realized how I was seen," said Bergeron. "It was more noticeable than I thought. It was almost shocking." Fellow students asked about Bergeron's condition, making her even more aware of her appearance.

While Bergeron had undergone multiple

surgeries as a child, including a procedure to implant a boneanchored hearing device, she and her parents were not comfortable with the available technology for plastic surgery to correct the appearance of facial paralysis.

When Bergeron expressed interest in pursuing more surgery, they began a long process to find the right doctors—a journey that ultimately led them to NorthShore's Mark Sisco, MD, and Jeremy Warner, MD, plas-



Bergeron was born with significant muscle and nerve dysfunction on the right side of her face, leaving her unable to smile.

"They explained everything step by step and wanted to know how I felt about it. They wanted to work with me, not just operate on me. They actually cared."

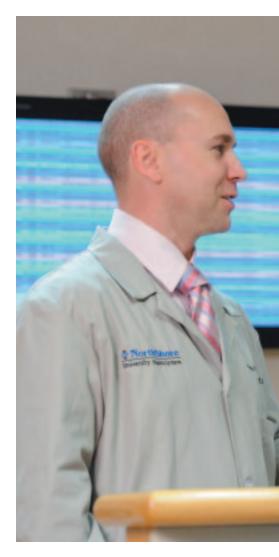
tic and reconstructive surgeons with specialized expertise in advanced procedures.

Thanks to a referral from NorthShore's nationally recognized Director of Pediatric Plastic Surgery Bruce Bauer, MD, Bergeron met with Drs. Sisco and Warner and immediately felt confident in their ability to help "create a smile" for her. "I liked the way they interacted with me," she said. "They talked to me like I was a real person, not just a patient. They explained everything step by step and wanted to know how I felt about it. They wanted to work with me, not just operate on me. They actually cared."

The specially trained surgeons operated together using sophisticated technology to

transplant a small piece of muscle from Bergeron's thigh in her face. This procedure entailed attaching the muscle from the corner of her mouth to the side of her face and connecting tiny blood vessels to nourish the new tissue. Additionally, the surgeons attached nerves to provide new nerve connections to the jaw, which would enable Bergeron to smile and control the right side of her face for the first time in her life.

The complicated procedure took close to 10 hours and



required the complementary skills of both fellowship-trained surgeons. Dr. Sisco's specialized training encompasses reconstructive microsurgery; Dr. Warner trained with a premier facial aesthetics team. Both physicians, along with Dr. Bauer, hold academic appointments at the University of Chicago Pritzker School of Medicine.

"The procedure requires such different areas of expertise that there are few plastic surgeons doing this," said Dr. Sisco. "With the complexity of a case like this, we get better results using a team approach."

The results for Bergeron were fantastic. While she has had to retrain her muscles to smile, consciously practicing in a mirror, just



Collaborative Expertise, Specialized Experience

Drawing patients from around the country, NorthShore plastic surgeons Jeremy Warner, MD, and Mark Sisco, MD, are part of a collaborative and highly trained team combining their specialized experience to benefit a variety of patients.

Support from specially trained nurses and other healthcare professionals—from preoperative to post-operative care—is essential to successful outcomes, according to Drs. Sisco and Warner.

The skilled surgeons agree that working together provides not only complementary technical expertise, but also multiple perspectives when it comes to making crucial decisions.

"The knowledge of exactly where to attach a muscle or at what angle to position tissue for the best outcome is critical to the end result," said Dr. Warner.

"There are so many nuances and subtle things we've learned from doing so many procedures," emphasized Dr. Sisco. "One stitch put in the side of the face can have a major impact." months after the surgery she began to see a real difference.

"I look more natural than ever when I smile," she said. "It also has helped contour the right side of my face, building it up so it's more symmetrical. I want to be able to look people in the eye and not be self-conscious in the first meeting. This has been really, really cool and has made a big difference."

Admittedly, Bergeron was nervous going into the procedure and knew there were no guarantees, but she said, "I had complete and total faith in my doctors. I went with my gut." Her instincts paid off.

"I've had multiple surgeries before, and this was the smoothest by far," she said. Spending just three days in NorthShore Evanston Hospital following the surgery, Bergeron said she was exhausted after the procedure but felt practically no pain.

"It sounds invasive and scary," she said, "but it was extraordinarily painless. Everything healed faster than I could have anticipated."

Both physicians were quick to acknowledge the high stakes and big expectations for a procedure of this nature, and they are equally pleased with the results.

"Jade had a good self-image and had learned to adapt very well," said Dr. Warner. "It was gratifying to help take her to that next step," they both added.

Now a sophomore in college, Bergeron's major is speech and language pathology. "I've known pretty much my entire life this is what I wanted to do," she said. Already she has been an advocate for Cochlear, the company that makes the implant that helps her hear, and she remains passionate about using her own experience to help others.

No doubt the combination of her exceptional journey and her attitude of acceptance will benefit many others. "I wouldn't be me without my imperfections," she added.

Freshman Serge Sievertson is back in action on the soccer field at Iowa's Central College after suffering a pellet gun wound last summer.



WORKING TOWARD A

NorthShore Team Nurtures Soccer Player Back to Health

By Barb Hailey

hen a trauma comes in, our pagers go off and we respond," said Belinda Chandler, chaplain at NorthShore Skokie Hospital. It was just such a trauma page last summer that set into motion

NorthShore's multidisciplinary system of care that helped 18-year-old Serge Sievertson quickly recover after accidentally being shot with a pellet gun.

Sievertson had just graduated from New Trier High School and was preparing for a major personal milestone—starting college on a soccer scholarship at Central College in Pella, Iowa. "I play soccer because I love it," he said. "It's my passion, and I can't see myself anywhere without it."

He and his girlfriend had stopped by a friend's house in Skokie last July when his future plans were violently interrupted. Sievertson was shot in the neck as a result of his friend's careless handling of a pellet gun. The pellet passed through his trachea and esophagus before it lodged in the vertebrae of his neck, only one millimeter from his spine. "One thing that really sticks out was the level of personal care and attention I got. The nurses and staff were really cheerful."

Sievertson's friend drove them to the Emergency Department Trauma Center at Skokie Hospital. When Sievertson arrived, the Skokie Hospital team sprang into action.

Sievertson's parents were called, and Chandler provided emotional and spiritual support throughout his 3½-hour surgery and follow-up care. "Belinda provided hope and kindness during hours of desperation," said Sievertson's father, Dana.

"It takes a tremendous team effort to respond to a trauma," said Douglas Norman, MD, the thoracic surgeon who operated on Sievertson. Dr. Norman, who retired in December 2011, has seen countless trauma cases throughout his career.

"He's a very lucky kid," said Dr. Norman. "Had it been a regular bullet, he would have been a quadriplegic." Dr. Norman skillfully



Intensive Care Unit nurses Mary Hamester (left) and Diana Diakakis were on the team who cared for Serge Sievertson at NorthShore Skokie Hospital.

removed the pellet and set about repairing the damage to Sievertson's trachea and esophagus. These structures are located very close together, and Dr. Norman had to make sure that after they healed they would not form an abnormal connection that could cause future complications.

After Sievertson's surgery, Skokie Hospital's Intensive Care Unit (ICU) staff took over. Sievertson was sedated and had a breathing tube inserted in his throat for five of his seven days in the hospital. "The care I had, from what I can remember, was phenomenal!" Sievertson recalled. "One thing that really sticks out was the level of personal care and attention I got. The nurses and staff were really cheerful."

Dana Sievertson specifically commended the care of Skokie Hospital ICU nurses and patient care technicians who were with his son most days. "Their personal involvement was absolutely overwhelming," he said. "Our family had such a life-changing experience with them."

On the day Sievertson was discharged, he was able to walk a mile at the New Trier track. He began college on time, and from mid-September on played in every Central College soccer game, starting each game with the team.

"Soccer is a beautiful game," Sievertson said. Some of the attributes he used to describe the game's zeal—"love, passion, finesse, skill, endurance and physical strength"—apply to his care at NorthShore.

"This is what nursing is all about," said ICU nurse Judith McKoy-Bent of Sievertson's recovery and realization of his goals. "It makes what we do as caregivers so worth it."

NorthShore Skokie Hospital Expansion: Enhancing Care in the Community

Several construction projects at Skokie Hospital are enhancing the healthcare services that NorthShore offers the community.

A state-of-the-art Cardiac Catheterization and Interventional Radiology Laboratory opened in September 2011. Equipped with leading-edge technology and designed to improve patient flow, the new lab is a premier setting to continue providing the most advanced cardiovascular care to the community in a best-in-class environment.

Work continues on the hospital's new Ambulatory Care Center (ACC), slated for completion at the end of 2012. The building will significantly expand capacity for outpatient services. Skokie Hospital's ACC will be a four-story structure that includes primary care and specialty physician offices, pharmacy and lab space, and a wide variety of imaging services.

mature health

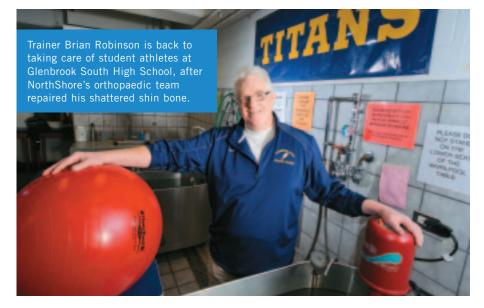
Role Reversal

High School Athletic Trainer Overcomes Injury With Help From NorthShore Orthopaedic Surgeon

By Barb Hailey

Brian Robinson has dedicated his career to helping high school athletes stay fit for competition or safely recover following an injury. Robinson's role as head athletic trainer at Glenbrook South High School for the past 35 years has kept him on his toes—physically and mentally. So, when a severe knee injury sidelined him for the 2009 football season, Robinson experienced a role reversal.

Robinson's injuries were similar to those of most high school athletes—unexpected and ill-timed. He lost control of his bicycle during an early morning bike ride, and to steady himself, put his left foot down hard. His leg bent out to the side. "I thought I had just torn my ACL (anterior cruciate ligament, one of four ligaments supporting the knee)," Robinson said.



His wife picked him up, and en route to NorthShore Glenbrook Hospital, Robinson called a trusted, experienced physician: NorthShore-affiliated orthopaedic surgeon Eric Chehab, MD. Dr. Chehab has been the Glenbrook South team physician since 2006, and he and Robinson are on the field together for every football game.

At the Glenbrook Hospital Emergency Department, Robinson got an X-ray, and using NorthShore's Electronic Medical Record (EMR) system, Dr. Chehab viewed the results remotely. "He made a definitive diagnosis right there," Robinson recalled.

Robinson's injury was worse than he had expected. He had shattered his tibial plateau, the shinbone's upper surface responsible for

NorthShore's Orthopaedic Team Expands

The physicians of Northwestern Orthopaedic Institute, LLC (NOI) joined NorthShore in January, expanding comprehensive orthopaedic care, accessibility and convenience in Chicago and its suburbs.

"The exceptional physicians of NOI will complement the quality, advanced orthopaedic care we already provide," said Joseph Golbus, MD, President, NorthShore Medical Group.

"This is an exciting opportunity for our physicians to be associated with the preeminent health provider in the Chicago area," said Mark K. Bowen, MD, orthopaedic surgeon and Co-President of NOI. "We look forward to enhancing the full spectrum of comprehensive subspecialty orthopaedic care at NorthShore." the knee's load-bearing capabilities, and had torn two knee ligaments.

"The tibial plateau is the knee's foundation," said Dr. Chehab, who holds an academic appointment at the University of Chicago Pritzker School of Medicine. "Everything rests upon it." While the torn ligaments healed without surgery, Dr. Chehab had to surgically rebuild Robinson's tibial plateau using a bone graft to augment the shattered bone and applying a metal locking plate to support and hold the reconstructed plateau together.

After surgery, the rehabilitation process which Robinson and Dr. Chehab have supervised for many of their injured athletes began. Robinson couldn't put any weight on his knee for six weeks, and then only partial weight for six more. "Rehabilitation is difficult, but Brian needed to get back in the game, just like his athletes," said Dr. Chehab. "He was diligent about his physical therapy."

"For injured students who wonder if they can do what they did before an injury, I can tell them that they'll be fine," Robinson added. "Today, I'm happily back to where I was before my injury."

To learn more about NorthShore's advanced orthopaedic and sports medicine, please call (847) 492-5700 (Ext. 1274).

CENTER FOR SIMULATION AND INNOVATION

Simulation for the Real World

Unique Center Provides Advanced Training to Improve Patient Care

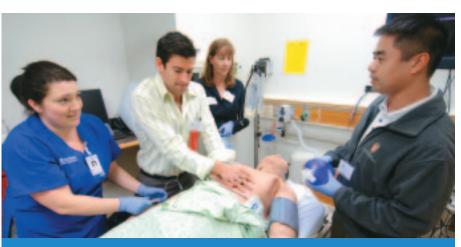
By Barb Hailey and Susan J. White

mergency Department physician Michael Wahl, MD, recently treated a patient at NorthShore Glenbrook Hospital who required a breathing tube to be inserted quickly in her throat. The procedure, known as intubation, is common in emergency situations, but a variety of complications can make it challenging. In Dr. Wahl's case, the patient's mouth had filled with blood from a bleeding stomach, obscuring the visual cues he needed to place the tube correctly.

"I hadn't had a difficult airway like that in years," said Dr. Wahl, who had recently taken a class at the NorthShore Center for Simulation and Innovation (NCSI). The Center offers specialized simulation training for a wide variety of medical procedures. Dr. Wahl, who holds an academic title at the Pritzker School of Medicine, believes this advanced training better enabled him to intubate the patient—and he's certain it helped save her life.

Medical simulation is an exciting and rapidly growing field designed to provide physicians, nurses, residents, medical students and first responders life-like training to improve their technical skills and critical thinking. In medical simulation, healthcare professionals "treat" computerized mannequins that simulate a full range of real-life situations in an environment replicating the actual hospital setting. The mannequins can talk and respond just like real patients. The intense training leads to enhanced patient care, improved safety and better outcomes.

NCSI is one of only a few truly multidisciplinary centers and the largest hospital-



Patients benefit from the advanced training at NorthShore's Center for Simulation and Innovation. Participants include NorthShore's own physicians and nurses, like staff nurse Chrissa Stumpe (far left) from Evanston Hospital's Emergency Department. The Center also draws clinicians from around the country.

based center in the country in terms of the number of training courses and participants, as well as square footage. Recently, the Center received the highest level of accreditation from the American College of Surgeons.

"The Center's goal is to help people develop stronger skills through practice without risk," said NCSI Medical Director Ernest Wang, MD. "It also provides an opportunity to hone those skills, especially for activities that must be performed often."

Dr. Wang used Captain Chesley Sullenberger, the airline pilot who made a successful emergency landing in the Hudson River in 2009, to underscore the critical importance of simulation training. "The pilot had never done that kind of landing in real life, but he had practiced it through simulation," he said.

"Having this space allows us to bring in experts from around the world," said NCSI Surgical Director Michael Ujiki, MD. "It gives us a space to test new instruments and surgical techniques in a risk-free setting."

NCSI's unique combination of surgical and medical simulation creates a new level of collaboration beyond most programs. The lab encourages communication between a variety of specialties, providing enhanced knowledge and a ready dialogue to develop new applications for both disciplines.

Both Drs. Wang and Ujiki hold academic appointments at the University of Chicago Pritzker School of Medicine, and NCSI is also a key element of medical student and resident education. Community-based programs also are being expanded to expose high school and college students to medical careers.

In partnership with the University of Chicago, NCSI held the first National Brain Death and Stroke simulation course last November. Led by NorthShore's Morris Kharasch, MD, and the University of Chicago's Jeff Frank, MD, the course was a first step in working toward a more well-defined, uniform standard of brain death classification.

KELLOGG CANCER CENTER Confronting Breast Cancer Head-On

School Principal's Determined Battle Inspires Others

By Andy Buchanan

s a high school principal on Chicago's Northwest Side, Isabel Tellez brings an energy and optimism to each day that is infectious. But she admits to being rocked, momentarily at least, by a diagnosis of breast cancer last January.

"Needless to say, I was terrified," said Tellez, 50. "But more importantly, I wanted to know, 'Okay, so I have it—how do I get rid of it? What do I do next?' I call this my healing journey."

After finding a lump during a self-exam, Tellez visited NorthShore-affiliated internist Eladio Vargas, MD, and a series of tests and scans followed at NorthShore Evanston Hospital. She was diagnosed with Stage IV breast cancer that had metastasized from her left breast into a nearby bone. Despite that, she didn't go looking for sympathy. "Sometimes we hear the word 'cancer' and feel like, 'My world is coming to an end and I just started living,'" Tellez said. "Yes, it's a disease, but it's treatable and it's a part of life. I don't allow anybody to feel sorry for me."

The journey was made smoother for Tellez by what she described as a "phenomenal" team of caregivers at NorthShore, including medical oncologist Teresa Law, MD; surgical oncologist David J. Winchester, MD; and NorthShore-affiliated radiation oncologist Arif Shaikh, MD. Drs. Winchester and Shaikh hold academic appointments at the University of Chicago Pritzker School of Medicine.

"I felt there was warmth, personalization and a sense of trust. I felt I was in the right place," an emotional Tellez added, wiping away tears. "Through this journey, I have

met so many wonderful people—not just the doctors but their entire office staff and the nurses at the treatment center that give me my infusions. You can tell they like their jobs.
They're jovial, they're happy and it's really, really uplifting."

Tellez also found the NorthShore Kellogg Cancer Center staff welcoming to her support group, which included her mother, a breast cancer survivor herself. Dr. Law, who is bilingual, would chat with her mother in Spanish.

"As crazy as it sounds, I was happy that I was going through chemotherapy," Tellez said.

When the cancer was first found in her left breast, surgeons removed it as well as some lymph nodes. Then, a small, noninvasive tumor was found in the other breast. Described as a "breast cancer warrior" by her caregivers, Tellez elected to have that breast removed, too.

"She's someone who faced her disease head-on with courage and always maintained such a positive attitude throughout her treatment," said Dr. Law. "It's very inspiring. I know that one of her goals has been to raise awareness about breast cancer screening and to be a positive role model for those facing similar challenges in their own lives."

Tellez's sense of humor has also helped. When her hair started to fall out because of the chemotherapy treatments, she had it shaved off. "What I discovered was that I had a beautiful head," she said with a laugh. "This doesn't make you any less of a woman; it only makes you a better person. But you have to accept it. And once you accept it, then you move forward."



Breast cancer survivor Isabel Tellez (left) credits her "phenomenal" team of NorthShore caregivers, including medical oncologist Dr. Teresa Law.

RESEARCH INSTITUTE

Unlocking the Mysteries of Schizophrenia

NorthShore Researcher Leads International Study to Understand Its Origin

By Barb Hailey

S chizophrenia is an elusive and severe psychiatric disorder that affects up to 70 million people worldwide. Its causes remain largely unknown, and there is no cure. However, recent findings of an international study led by Pablo V. Gejman, MD, Director of the NorthShore Center for Psychiatric Genetics, are shedding new light on how schizophrenia is studied, which may lead to the development of better therapies, including more specific and effective medications with fewer side effects.

Several factors increase the risk for schizophrenia. Although genetic factors are the strongest overall, researchers have not been able to precisely identify specific genes. Dr. Gejman, the Dr. Louis W. Sauer Chair of Research at NorthShore, has spent more than two decades working in clinical and molecular aspects of psychiatric genetics. Dr. Gejman also holds an academic appointment at the University of Chicago Pritzker School of Medicine.

Most recently, he led the international consortium that conducted a genome-wide association study (GWAS) on schizophrenia. The researchers found five novel genetic variants that increase the susceptibility to schizophrenia and reported their findings in the Sept. 18, 2011 issue of the journal *Nature Genetics*.

The Schizophrenia Psychiatric GWAS Consortium was formed in 2007 and is the largest consortium ever in psychiatry. More than 250 researchers from 20 countries collaborated to advance knowledge of the genetic causes of mental illness.

Crucial to the project's success was the willingness of groups to share genetic data collected from their patients over many years. Numerous European, American and Australian



NorthShore's Dr. Pablo Gejman leads an international team seeking to find the origins of schizophrenia and ultimately better treatment options.

entities funded the research, and the U.S. National Institute of Mental Health provided funds for the consortium's coordination.

The collaboration consisted of 17 research groups from the U.S., Europe and Australia that examined the role of common genetic variation in schizophrenia in a sample of nearly 22,000 individuals of European ancestry. "It is, up to now, the largest sample assembled for the study of schizophrenia genetics," said Dr. Gejman. "Because of its complexity, you cannot study this disorder by examining a small sample."

The data indicated seven specific locations of genes, or loci, on certain chromosomes that increase the susceptibility to schizophrenia, including one that is a regulator for neuronal development.

"The findings suggest a variety of possible functional changes associated with schizophrenia, from abnormal transcriptional regulation to autoimmunity and maternal infections," said Dr. Gejman. "This study opens our conceptualization of schizophrenia and changes the way we look at the disorder."

The research highlights the need for a better understanding of the pathways leading to schizophrenia to develop better treatments. "These studies show that numerous common variants increase the risk for schizophrenia. And although they may represent small individual effects, many probably act in the aggregate," said Dr. Gejman. "Our challenge now is to discover the biological mechanisms that underlie the genetic associations of schizophrenia."

COMMUNITY RELATIONS

Medical Safety Net

NorthShore Subsidized Health Services Deliver Compassionate Care to Those Who Need It Most

By Phil Rozen and Susan J. White

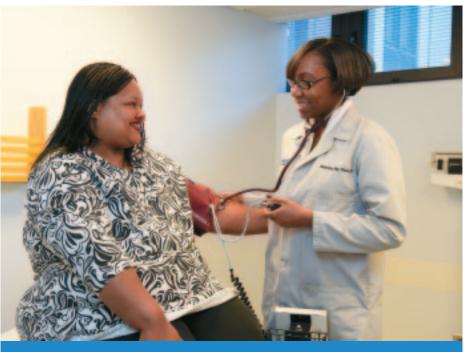
hese tough economic times make it harder than ever for families to obtain health insurance—whether through their employer or paying for it independently. That's why NorthShore remains committed to providing vital healthcare services to those in our communities who find themselves in need.

Beyond charity care, NorthShore provided more than \$22 million in additional subsidized health services last year through a variety of programs, including a perinatal family support center, a comprehensive dental center and an on-site health center at Evanston Township High School (ETHS). The goal of these programs is to ensure that residents in our communities have access to quality healthcare.

Pamela Wells, 42, is among the some 11,000 patients a year who benefit from services at the NorthShore Evanston Hospital Outpatient Clinic. The Clinic provides free and discounted care to adults, children and teens without private health insurance. Prior to coming to the Clinic, Wells was suffering from undiagnosed hypertension.

"I used to ignore my health needs because I didn't need the extra worry about another bill that I couldn't afford," recalled Wells. "I knew I didn't feel right, but had no clue what was wrong until I started coming here and found out my blood pressure was too high."

"The level of care is great," said Wells,



Pamela Wells' hypertension is now in check, thanks to the efforts of Dr. Jacqueline Ivey-Brown and the Outpatient Clinic at NorthShore Evanston Hospital.

who is now on medication and feeling fine. "The nurses and doctors are so caring and go out of their way to make me feel comfortable. It's a godsend."

The staff includes registered nurses and resident physicians who provide care under the supervision of senior attending physicians on staff at NorthShore. Services range from internal medicine to obstetrics/gynecology, general surgery, orthopaedics and diabetes education.

"Having this clinic allows us to catch conditions early and prevent more serious, even life-threatening illnesses," said Medical Director Jacqueline Ivey-Brown, MD. "We're here as a vital resource for the community, providing top-notch care for those who might otherwise go without."

NorthShore's subsidized services stretch well beyond the walls of our facilities. The school-based health center at ETHS is a collaborative partnership between NorthShore, ETHS and the Evanston Health Department. It provides free care—staffed and funded by NorthShore—to all students who register. Close to 2,000 young people visit annually for physicals, immunizations, treatment of acute and chronic illnesses, and individual counseling.

Evanston Mayor Elizabeth Tisdahl described the health center as "an example of everything that is wonderful about this community." The Mayor recalled a student who received treatment for a particularly tough case of acne. "He walked with his head down, was withdrawn and didn't have a lot of friends," she said. The center provided treatment that cleared up his acne and in a real way changed his life. His newfound confidence allowed him to walk with his head held high, expand his social circle and begin doing better in school.

"The health center has been a tremendous asset to this community," added Mayor Tisdahl.

You can help NorthShore in its ongoing commitment to provide subsidized health services through a donation to our Charity Care and Community Service Fund. Please visit northshore.org/cfwin12.

To learn more about upcoming fundraising events, please visit **northshore.org/evwin12**.

Lasting Legacy

Glenview Family's Gift Creates Inspired Oasis for Cancer Patients and Families

By Eileen Norris

Ilen Marks never let breast cancer get in the way of her passion for life and adventure. Despite her diagnosis 15 years ago, Marks maintained her treatments at NorthShore and continued to travel around the world and capture beautiful memories through the lens of her camera.

To celebrate her courageous fight, an Ellen Marks photo gallery was recently unveiled in the waiting area of NorthShore Kellogg Cancer Center at Highland Park Hospital.

"The Ellen Marks Gallery and the refurbished waiting area provide a calming oasis for cancer patients, offering much-needed relief as they cope with this transitional period in their lives," said her husband, David Marks. Marks, who established the Ellen Marks Cancer Foundation, gifted NorthShore Foundation with a substantial commitment in memory of his wife who lost her battle to breast cancer in August 2010.

The gift supports enhanced cancer patient care and research initiatives, in addition to the naming of the Ellen Marks Ambulatory Care Center (ACC) at Highland Park Hospital.

"The photos represent Ellen's zest for life and how important she believed it was to live each day to its fullest," added Marks. "Ellen received her treatment here in Highland Park and had great admiration for her caregivers. It is only fitting that this is where her legacy remains. There will never



David Marks (left) and Dr. Leon Dragon display one of the travel photos featured in the new Ellen Marks Gallery at North Shore Kellogg Cancer Center at Highland Park Hospital.

be closure, but knowing that this gift will create further research and care that will help other cancer patients and survivors is incredibly comforting."

Ellen Marks, mother of four children and grandmother of three, lived in Glenview for 25 years. Honoring her with the naming of the ACC and the photo gallery will serve as a lasting testament to her spirit and a reminder "to do what you love and enjoy every day that you have," said Marks.

"Even when Ellen wasn't feeling well after a treatment, she didn't let it get in the way of her daily life or plans to travel," added Marks. "She'd say, 'I'm not going to worry about tomorrow and lose today!" Marks said each photo in the Ellen Marks Gallery represents the "chemo cycles of her life." There is also a montage of Ellen in nine different settings across the globe. At the bottom of the montage are the words: "The World through the Eyes of Ellen Marks."

"It was my privilege to be Ellen's oncologist," said Leon Dragon, MD, Medical Director of the Kellogg Cancer Center at Highland Park Hospital, who holds an academic title at the Pritzker School of Medicine. "She always brought great energy to our visits and exciting stories of her most recent travels. Medical science will feel the impact of this gift, as will each patient and family member who enters the waiting area. We are most grateful to the Marks family for their generosity, passion and vision."

Honor Your NorthShore Physician

March 30 is National Doctors' Day, a time to recognize excellence among physicians. Whether it's your child's pediatrician, your internist or a gifted surgeon, doctors make a difference in our lives throughout the year. To show your support and appreciation of a NorthShore physician, please visit northshore.org/ddwin12.

Take the Fall Out of Winter With Simple Precautions

By Martha Floberg

Shoel a serious injury.

Question: What steps can someone take to reduce hazardous conditions outside?

Answer: It can be a challenge simply getting in and out of doors, so it's important to use common sense at home. Some precautions may require an upfront expense, but it's money well spent because it's less costly than treating an injury.

It's important to:

- Keep outdoor steps free of clutter and have sand or noncorrosive salt on hand
- Install hand railings on both sides of an outside stairway
- Install exterior lighting to better illuminate potential slippery spots

Q: How important is footwear in preventing falls?

A: Lightweight, well-fitting shoes and boots with slip-resistant traction can help you stay steady. It's also important to slow down and avoid taking shortcuts. For example, don't rush out to get the mail or morning paper with smooth-soled shoes.



Q: What can people do to improve their balance?

A: Regardless of a person's age, muscles that improve balance can become stronger by doing as little as 10 minutes a day of simple exercises at home that require no equipment. Research shows that hip and ankle muscles play especially important roles in preventing falls and keeping your body balanced, but they must be exercised correctly. Many people find it helpful to make an appointment with a healthcare professional to receive proper training on specific exercises to improve flexibility, strength, balance and endurance.

Q: How can NorthShore's Department of Physical Medicine and Rehabilitation help someone reduce his or her risk of falling? A: NorthShore offers a team of physicians and licensed physical therapists who can provide a comprehensive plan to improve core muscle strength and balance. This involves:

- Completing a comprehensive assessment of a person's gait and any muscular weakness
- Designing a customized exercise program to increase stability
- Identifying underlying issues that impact a person's balance, such as poor eyesight or arthritis.

NorthShore's Physical Medicine and Rehabilitation program is available at several outpatient locations across the area, including Buffalo Grove, Deerfield, Evanston, Glenview, Highland Park and Skokie.

For more information or to make an appointment, please contact the NorthShore Outpatient Rehabilitation Services at (847) 492-5700 (Ext. 1275).



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