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THE NEWEST PATIENT RECOVERY UNIT AT THE REHABILITATION INSTITUTE OF CHICAGO FEATURES BRIGHT ORANGE WALLS, AN ANTIGRAVITY GAIT TRACK THAT LOOPS THE ENTIRE FLOOR, AND "SMART ROOMS" WITH CIRCADIAN RHYTHM LIGHTING.
Message from Dean Neilson

Since the Patient Protection and Affordable Care Act (PPACA) was upheld by the Supreme Court at the end of June, there has been a great deal of concern as to how academic medical centers and other health care providers, as well as insurance carriers and consumers, will be affected. It is a complex issue, to be sure, but the fact remains that health care is expected to reach nearly 20 percent of the gross domestic product by 2019. As a nation, we spend nearly $8,000/patient, which is almost double the next highest country—much of this because of the high cost of wages, absence of value-based insurance co-payments, failure to do the right thing for patients and only the right thing, and our appetite across society to spend heavily on hopeless end-of-life care. We know something needs to be done to fix our health care system.

What is the value proposition for academic medical centers? While we make up only six percent of total health care providers in the country, we deliver 20 percent of the care, 30 percent of Medicaid care, and 40 percent of charity care. Studies also suggest research-intensive medical centers generate nearly all the basic science and translational research, leading to 44 percent of modern-day innovation. So it’s not a stretch to say we are an important piece of the health care environment. But we, like everyone else, are facing pressure from the federal government to do more with less, or as I prefer to view it, achieve efficiencies and more productivity with the resources we have.

One reason Northwestern Medicine® is on the list of top-tier academic medical centers is because we are good at adapting to our changing environment, which we have done again and again over the years. Although no one knows the full impact yet of the Affordable Care Act, we know we will adjust to whatever happens.

In many respects, the main pressure point for us will be the competition for resources. With downward pressure on growth of spending by the federal government, both health care reimbursements and research funding are under stress. Add to that the enormous cost of implementing and operating the Affordable Care Act. While implementation seems inevitable, some of these costs are competing for dollars that could go to support fundamental research to understand and improve human health before we get sick.

The fact is, even if health care was free today, we would still have many common diseases creating morbidity and taking lives. As a country, it’s imperative we strike the right balance in resource allocation. We have been in this spot before and when we solve this part of the equation, everyone will benefit.

With warm regards,

Eric G. Neilson, MD
Vice President for Medical Affairs and Lewis Landsberg Dean
New Institute Grows From Intersection of Public Health, Medicine

Finding ways to elevate healthcare burdens through the development of new programs.

Where public health and medicine intersect, now sits the newest institute of Northwestern University Feinberg School of Medicine. Launched this summer, the Institute for Public Health and Medicine (IPHAM) reflects a belief that the greatest opportunity for improving the nation’s health exists through groundbreaking, interdisciplinary research and educational programs that integrate public health and medical care approaches.

“It is increasingly necessary for those in the fields of public health and medicine to work together to address the national and global healthcare concerns of the 21st century,” says Rowland Chang, MD, MPH, director of IPHAM. “Perched at the forefront, the Institute for Public Health and Medicine will help Feinberg continue to develop innovative approaches to research and education.”

By accelerating its reach and impact through initiatives like community engagement, the institute will integrate the traditional approach of treating an individual’s symptoms with public health models that look to improve population well-being. The IPHAM will also link researchers across the University, creating a fertile environment for information sharing.

“One of our goals is to provide a space for researchers to collaborate with outside groups using the application of Team Science, which leverages the strengths and expertise of professionals from different fields,” says David Baker, MD, MPH, IPHAM deputy director. “These collaborative efforts will undoubtedly lead to new insights and novel applications of different research methods.”

ROWLAND CHANG, MD, MPH, IS THE DIRECTOR OF THE INSTITUTE FOR PUBLIC HEALTH AND MEDICINE
A NATION IN PERIL
As the nation gets older with the aging of the Baby Boomer generation and with disability from chronic disease continuing to rise, the United States faces an unprecedented healthcare burden. According to the Centers for Disease Control and Prevention, one-third of the country’s population is obese, placing tens of millions of people at greater risk for diabetes, heart disease, cancer, and more. With added pressure to deliver effective care in a time of changing federal laws, providers are continually challenged with establishing and implementing new approaches to health promotion, disease prevention, and chronic disease management.

Building on research already being conducted at Feinberg to address health care and patient-centered outcomes, epidemiology and prevention of disease, aging, global health, healthcare engineering, and community health, the Institute for Public Health and Medicine will help spark the innovation and public health solutions needed to confront these 21st century challenges.

“The IPHAM creates an opportunity for us to realign these efforts and assume an important leadership role for Chicago and the nation,” Dr. Chang says. “Although several divisions, departments, centers, and institutes support highly relevant educational, research, and service activities that interface public health with medicine, this institute will bring our efforts under one umbrella.”

EDUCATION AND PUBLIC HEALTH
The institute will be the medical school’s home for graduate education in public health, serving as the sponsor of a new integrated doctoral program for clinical and public health sciences, as well as the coordinator of existing related master’s degree programs in public health, epidemiology/biostatistics, health services and outcomes research, healthcare quality and patient safety, and clinical investigation. A structure for relevant post-doctoral fellowship opportunities will also be created.

Institute For Public Health and Medicine

“IPHAM will be known worldwide for excellence in training and research leading to the discovery, demonstration, and dissemination of innovative solutions to the pressing challenges of health and healthcare,” Dr. David Baker, IPHAM deputy director, says.

CENTER FOR HEALTHCARE STUDIES
Healthcare Equity
Health Policy & Implementation
Maternal & Child Health
Chronic Diseases Care & Outcomes
Health Economics
Healthcare Quality & Safety

CENTER FOR POPULATION HEALTH SCIENCES
Epidemiology & Life Course of Chronic Disease
Biostatistical Innovation
Bioinformatics Research
Related resources: Biostatistics Collaboration Center

CENTER FOR PATIENT-CENTERED OUTCOMES
Health Measurement
Outcomes Science
Patient-Centered Informatics
Developmental Mechanisms of Health & Disease
"The formation of the Institute for Public Health and Medicine brings together our existing strengths in these historically separate fields and positions us to take a leadership role in this emerging area," says Eric G. Neilson, MD, vice president for medical affairs and Lewis Landsberg Dean. "The institute will serve as a bridge for professionals, research initiatives, and academic programs, as well as cultivate and attract leaders in public health practice. It will help us raise the profile of Northwestern Medicine® and accelerate our efforts to become a premier academic medical center."

The IPHAM will advance this goal with the potential to generate $40 million in new research funding. Eventually, nearly 60,000 square feet of dry-lab space will be devoted to institute activities and will be used as a gathering place for researchers from different departments working together under the IPHAM enterprise.

**INSTITUTE ORGANIZATION**

While individual departments will remain the major organizational entities for activities pertaining to medicine, the IPHAM centers will be responsible for work revolving around public health and the intersection between the two fields.

The umbrella enterprise will house several new and existing centers that will focus on the four major components (research, education, community engagement, and health promotion) of its vision.

**CENTER FOR GLOBAL HEALTH**
- Global Health Education
- International Health Research
- Global Health Outreach

**BUEHLER CENTER ON AGING, HEALTH, & SOCIETY**
- Education in Palliative & End-of-life Care Program (EPEC)
- Patient Safety Education Program (PSEP)
- Health Services Evaluation & Policy
- Methodology & Infometrics
- Social & Behavioral Sciences

**CENTER FOR BEHAVIOR AND HEALTH**
- Multiple Behavior Change
- Health Promotion
- Biobehavioral Mechanisms of Health
- Evidence-based Practice

**CENTER FOR COMMUNITY HEALTH**
- Community-Healthcare Linkages
- Community Health Equity
- Child, Adolescent & School-based Health
- Violence & Injury Prevention
- LGBT Health & Development

**CENTER FOR ENGINEERING AND HEALTH**
- Healthcare Engineering
- Healthcare Analytics
- Behavioral Information Technologies
- Public Health and Medical Decision Making

**CENTER FOR EDUCATION IN PUBLIC HEALTH**
- Master of Public Health
- Master of Science in Epidemiology & Biostatistics
- Master of Science in Healthcare Quality & Patient Safety
- Master of Science in Health Services & Outcomes Research
- Master of Science in Clinical Investigation
- Health Sciences Integrated PhD Program

Taking a national leadership role in the development of innovative models for teaching, service, and research that actively engage communities, the institute will also help translate research into health care and public policy as our graduates continue with careers that reflect a commitment to these areas. "IPHAM will be known worldwide for excellence in training and research leading to the discovery, demonstration, and dissemination of innovative solutions to the pressing challenges of health and health care," Baker says.
Class of 2016 to Experience First Phase of New Curriculum

WRITTEN BY
Michele Weber

Feinberg embarked on curriculum redesign in fall 2009 & unveils first phase.

The Class of 2016 had many reasons for choosing the Feinberg School of Medicine, one of which was the information they received — and the excitement they perceived — about the school’s curriculum redesign. A long-recognized leader in medical education, Northwestern was intent on upholding the reputation for excellence and innovation it had honed for more than 150 years. During Second Look in April, a record number of prospective students flocked to the Chicago campus to get more details about the new model launching in fall 2012.

Most appealing were attributes like hands-on clinical experiences and patient interactions from day one, working in interdisciplinary teams, more focus on individual needs and professional development, as well as a tightly integrated approach to science and clinical medicine over the four years. These elements and more were incorporated into the new vision by dedicated faculty, staff, and students who had spent many hours over the past three years helping brainstorm, design, and pilot pieces of the new framework.

“The effort required to develop this new curriculum has been enormous,” says John X. Thomas, PhD, co-chair of the Curriculum Renewal Steering Committee. “It has required vision, lack of territoriality, and recognition of the way people learn today. And that effort has consumed countless hours of people who are already 100 percent committed to other activities. I think it would be easier to build a new building than to build a curriculum…but it’s been a wonderful team experience.”

NEW DESIGN MAXIMIZES INSTRUCTION
The redesigned model features a three-phase structure composed of four major element groups with four distinct knowledge threads woven throughout. Each phase will incorporate these basic building blocks of information in varying degrees, making the curriculum more integrated throughout the four-year experience. Gone is the traditional 2+2 year model: two years classroom with 2 years clinical; it has been replaced by an approach that better suits the skill sets of today’s learners and builds upon the Feinberg School’s eight core competencies. More extensive simulation training, team-based learning and focused clinical experiences, along with mentored research projects are some of the teaching approaches used in the new model.

THE FOUR CURRICULAR ELEMENT GROUPS INCLUDE:
» Science in Medicine fosters learning in the foundational sciences, as well as normal structure and function and the mechanisms of disease, diagnosis, therapeutic interventions, and prevention in an organ-based framework.
» Clinical Medicine focuses on the development of clinical skills, including communication and physical examination, as well as the collection and evaluation of information from a patient.
» Health and Society explores ways in which wellness is promoted in a population, including health disparities and outcomes, and the global integration of medicine with societal elements.
» Professional Development includes topics for personal and professional development, including ethics, professionalism, personal awareness and self-care, and allows students to select and develop an Area of Scholarly Concentration, a mentored research project carried over the four years.

THE FOUR CURRICULAR THREADS ARE:
» Medical Decision-Making & Laboratory Medicine includes acquiring information and using evidence-based medicine and cost-effective care to make medical decisions.
» Patient Safety and Quality Improvement provides important lenses about preventing adverse events, with a continuous focus on improving the quality of treatment and care.
» Lifestyle Medicine teaches students how to empower patients to take care of themselves for overall wellbeing.
» Teamwork & Leadership defines and models the characteristics of good teams and leaders.

“These four threads are part of what’s going to brand this new curriculum as uniquely Northwestern,” says Patricia Garcia, MD, MPH, co-chair of the Curriculum Renewal Steering Committee and director of the first-phase rollout. “They contain exciting and innovative content that will enable our students to practice 21st century medicine with the skill set that’s required for evidence-based, accountable care.”
ADVANCE PREPARATION
Rollout of the first phase of the curriculum began Monday, August 13, with the Class of 2016. But before they came to campus, the 161 new students completed eight online modules covering the fundamentals of energy metabolism and enzyme mechanisms.

"We know the vast majority of our students arrive with excellent preparation in these areas from their undergraduate experience," says Stephen A. Adam, PhD, associate professor in cell and molecular biology. “By moving this material into an on-line, on-demand format, students can review the information at their own pace and be ready to explore more advanced concepts in lectures.”

The modules were presented as screencasts of PowerPoint presentations, one of the new teaching methods to be utilized. Each included a list of objectives and practice questions and was designed to stand on its own as well as complement the others. Although completion was required, these pre-matriculation activities were not scored.

“We think this on-line format will be a good way to introduce basic concepts throughout the curriculum, so more class time can be devoted to discussions and more complex topics,” explains Adams.

WELCOME TO MEDICAL SCHOOL!
When students arrived on campus, the traditional orientation week had been replaced with “Introduction to the Profession,” a concept proposed by Eric G. Neilson, Lewis Landsberg Dean of the Feinberg School of Medicine. This substantive initiation week included readings, lectures, and other learning activities focused upon what it means to be a doctor and explaining the Feinberg core competencies. On Monday, students shared their expectations for medical school and learned about the process of becoming a physician. The next four days each focused on a different role that physicians play: Member of a Profession; Healer; Scholar, Learner and Teacher; Team and Community Member.

“One aspect that’s most important to me is the introduction early on of what it means to be a part of the profession,” explains Neilson. “I want our students to have a strong foundation and an early grounding on the importance of specialization.”

With this focus in mind, faculty members who represented a breadth of disciplines guided various sessions, exposing students to myriad topics using varying teaching modalities. Dividing the class into thirds on Wednesday, Thursday and Friday afternoons, students had the opportunity to shadow a hospital employee, conduct a patient interview, or enjoy free time for reflection.

During the shadowing experience, more than 100 Northwestern Memorial Hospital staff from a range of disciplines shared insights into the roles they play in making the hospital’s operations efficient, effective, and fully focused on a positive patient experience.

In addition, each day a group of 55 diverse patients who were being treated at Northwestern Memorial Hospital, Lurie Children’s Hospital, and The Rehabilitation Institute of Chicago volunteered to be interviewed by the new trainees. Students saw a patient interview conducted by a faculty member on the first day, were part of a group interview a day later, and finally, conducted their own interview.

“These interviews weren’t about the patient’s clinical problems so much as their experience of care, their experience of physicians, and their experience of teamwork,” says Joshua Hauser, MD, who helped plan the Introduction to the Profession activities. “We see this as an important grounding for the clinical medicine activities that will follow in the curriculum.”

IMPORTANT FOUNDATIONS
During the following week, first-year students embarked on a segment of the new curriculum called Foundations. This three-month introduction will provide the appropriate background and framework for the new curriculum. Foundations will include all element groups and threads and will set the tone for learning. Specific topics will be based on systems, including biochemistry, clinical skills, genetics, microscopic and gross anatomy, molecular biology, pathology, public health, and professionalism, just to name a few.

Watch for more information about the new curriculum in Ward Rounds and the weekly My Northwestern Medicine e-newsletter.
The late Joseph and Marjorie Lanterman have provided a transforming $9.85 million gift to Northwestern’s Division of Vascular Surgery in appreciation for the care they received. They also honor the enduring relationships they enjoyed with former faculty member John F. Marquardt, MD ’60, GME ’62, and James S.T. Yao, MD, PhD, former chief of the division and emeritus professor of surgery.

Prominent Chicagoans, the Lantermans gave generously of their time and resources. Joe was chairman and CEO of Amsted Industries and held leadership positions in more than 35 civic, educational, and business organizations. Marjorie was a member of the women’s boards of Northwestern University and the Lyric Opera. She was also committed to research.

Since the 1970s, the Lantermans were patients of Dr. Marquardt, who led a well-respected internal medicine practice and was on Northwestern’s faculty for 40 years. When he retired, Marjorie Lanterman continued her care with faculty member Mary Beth Richmond, MD ’86, GME ’89. After Joe passed away in 1991, Marjorie honored her husband by gifting her estate to the medical school.

“Joe and Marjorie were not only patients of mine, but also became very good friends,” says Dr. Marquardt. “Marjorie shared in our family events. She had a great sense of humor and always enjoyed a good joke. She was extremely generous, and a lovely lady in the true sense of the word.”

SUPPORTING EDUCATION, RESEARCH, AND CARE

The Joseph B. & Marjorie M. Lanterman Endowed Research and Education Fund in Vascular Surgery will be used to develop programs in vascular disease education, research, and patient care.

“Endovascular surgery has emerged as an alternate technique to treat vascular lesions,” says Dr. Yao. “The Lanterman gift will help the Division develop new technology for the treatment of complex aortic aneurysms and dissection.”

It will also support the use of training devices and visits to other academic medical centers to enhance fellowship trainee learning.

“Endovascular technology has impacted the training of vascular surgeons. In fact, programs have been extended to two years to provide adequate training in all aspects of vascular surgery,” says Dr. Yao.

To help recruit and retain high-quality Northwestern faculty in the Division, the Lantermann Research and Education Fund has been used to create the John F. Marquardt, MD, Clinical Research Professorship in Vascular Surgery and the James S.T. Yao, MD, PhD, Professorship of Education in Vascular Surgery in honor of Drs. Marquardt and Yao. Mark K. Eskandari, MD, holds the James S.T. Yao Professorship. Finally, the Lantermann Fund will help to sustain and further the Division’s excellent basic science research programs.

“Joseph and Marjorie Lanterman have left their mark at Northwestern,” says Eric G. Neilson, MD, vice president for medical affairs and Lewis Landsberg Dean. “Through their foresight and generosity, they are creating high-impact opportunities and providing vital leverage for the Division of Vascular Medicine’s future success. We are incredibly grateful and heartened by their investment and confidence in Northwestern.”

Visit Ward Rounds online to read about a $10 million gift to support Regenerative Nanomedicine Research.
Faculty Awards and Honors

Recognizing more than four decades of distinguished service, the American Heart Association gave Darwin Labarthe, MD, PhD, MPH, professor in preventive medicine, the 2012 Gold Heart Award, its highest honor. An AHA volunteer since 1971, Dr. Labarthe founded and for 25 years directed the U.S. Ten-Day Teaching Seminars on the Epidemiology and Prevention of Cardiovascular Disease.

Kathryn Montgomery, PhD, Uihlein Chair in Medical Humanities and Bioethics, will receive the Lifetime Achievement Award from the American Society for Bioethics and Humanities in October.

Melissa Simon, MD, MPH, associate professor in obstetrics and gynecology-general/preventive medicine and medical social sciences, has been named a recipient of the American Medical Association (AMA) Foundation’s 2012 Leadership Award. This award provides medical students, residents/fellows and early career physicians from around the country with special training to develop their skills as future leaders in organized medicine and community affairs. Recipients of the award are recognized for demonstrating outstanding non-clinical leadership skills in advocacy, community service, and education.

In July, three scientists from Northwestern University Feinberg School of Medicine received the Presidential Early Career Award for Scientists and Engineers (PECASE). The three scientists are C. Shad Thaxton, MD, PhD, who is developing next-generation therapeutic nanoparticles for heart disease and cancer; Steven Kosak, PhD, who studies the organization of genomes; and Charlesnika Evans, PhD, MPH, who researches the secondary complications of spinal cord injury and healthcare-associated infections.

PECASE is the highest honor given by the U.S. government to outstanding scientists and engineers who are in the early stages of their independent research careers.
A new preclinical study published in the *Journal of Neuroscience* reports that when one of the new Northwestern drugs is given to a mouse genetically engineered to develop Alzheimer’s, it prevents the development of the full-blown disease. The study, from Northwestern’s Feinberg School and the University of Kentucky, identifies the optimal therapeutic time window for administering the drug, which is taken orally and easily crosses the blood-brain barrier.

“This could become part of a collection of drugs you could use to prevent the development of Alzheimer’s,” says D. Martin Watterson, a professor of molecular pharmacology and biological chemistry at the Feinberg School, whose lab developed the drug.

MW151 and MW189 work by preventing the damaging overproduction of brain proteins called proinflammatory cytokines, which scientists now believe contributes to the development of many degenerative neurological diseases as well as to the neurological damage caused by traumatic brain injury and stroke.

**INHIBITS MULTIPLE SCLEROSIS DEVELOPMENT**

In M.S., overproduction of the proinflammatory cytokines damages the central nervous system and the brain. The proteins directly or indirectly destroy the insulation of the nerve cells that transmit signals down the spinal cord. When the insulation is stripped, messages aren’t properly conducted.

When mice that were induced to develop an M.S.-like disease received MW151 orally, they did not develop disease as severe. “We inhibited the development of the disease,” says William Karpus, the Marie A. Fleming Research Professor of Pathology at the Feinberg School. “Now we need to learn if the drug can prevent relapses.”

**PROTECTION AFTER TRAUMATIC BRAIN INJURY**

After a traumatic brain injury, the glia cells in the brain become hyperactive and release a continuous cascade of proinflammatory cytokines that—in the long term—can result in cognitive impairment and epilepsy.

In a study with mice, Mark Wainright, MD, professor of pediatric neurology at Northwestern’s Feinberg School and a physician at the Ann & Robert H. Lurie Children’s Hospital of Chicago, showed that when MW151 is given three to six hours after the injury, it blocks glial activation and prevents the flood of proinflammatory cytokines.

“If you took a drug like this early on after traumatic brain injury or even a stroke, you could possibly prevent the long-term complications of that injury, including the risk of seizures, cognitive impairment and, perhaps, mental health issues,” Wainwright says.  

The study was supported by funds from the American Health Assistance Foundation, an Alzheimer’s Association Zenith award, a gift from the Kleberg Foundation and grants P01 AG005119 and R01 AG027297 from the National Institute on Aging of the National Institutes of Health and R01 NS056051 and S10 RR026489 from the National Institutes of Health.

**New Drug Could Treat Alzheimer's, Multiple Sclerosis and Brain Injury**

**WRITTEN BY:** Marla Paul

The study was supported by funds from the American Health Assistance Foundation, an Alzheimer’s Association Zenith award, a gift from the Kleberg Foundation and grants P01 AG005119 and R01 AG027297 from the National Institute on Aging of the National Institutes of Health and R01 NS056051 from the National Institute of Neurological Disorders and Stroke from the National Institutes of Health.

A new class of drug developed at Northwestern University Feinberg School of Medicine shows early promise of being a one-size-fits-all therapy for Alzheimer’s disease, Parkinson’s disease, multiple sclerosis and traumatic brain injury by reducing inflammation in the brain.

Northwestern has received patents to cover the new drug class and has licensed the commercial development to a biotech company that has recently completed the first human Phase 1 clinical trial.

The drugs—represented by MW151 and MW189—target a particular type of brain inflammation, called neuroinflammation, which is increasingly believed to play a major role in the progressive damage characteristic in these neurological diseases and in traumatic brain injury and stroke.
Stress Reduction Therapy Prevents M.S. Brain Lesions

The study was supported by the National Institute of Child Health & Human Development of the National Institutes of Health grant R01-HD043323.

A weekly stress management program for patients with multiple sclerosis (M.S.) prevented the development of new brain lesions, a marker of the disease’s activity in the brain, according to new Northwestern Medicine® research. Brain lesions in M.S. often precede flare-ups of symptoms such as loss of vision or use of limbs or pain.

“This is the first time counseling or psychotherapy has been shown to affect the development of new brain lesions,” says David Mohr, principal investigator of the study and professor of preventive medicine at Northwestern University Feinberg School of Medicine. “In M.S., the prevention of new brain lesions is an important marker used to judge how effective medications are.”

The results from the study, which was published in the July 11, 2012, issue of Neurology®, indicate that stress management therapy may be a useful adjunct treatment with drug therapy, but a larger clinical trial is needed to confirm this, Mohr says.

Mohr’s previous research showed a connection between psychological distress and the development of new brain lesions. Stress is one of many factors that influence whether the underlying M.S. disease processes escalate to the point of a new lesion or a relapse. Mohr has spent more than a decade studying the link between emotional distress and M.S.

“When people overestimate the threat of an event or underestimate their ability to manage it, we teach them how to evaluate their own thinking about the stress and how to challenge and change that thinking to a more realistic and helpful appraisal,” Mohr explains.

Patients also were taught how to calm their physical reactions to stress through relaxation and meditation to cope with stressful events that couldn’t be avoided.

MRI neuroimaging showed the stress management therapy reduced two types of new brain lesions common in multiple sclerosis. But the improvement in brain lesions didn’t last after the stress management program ended.

“This suggests that we will need to develop treatments that are more sustainable over longer periods of time,” Mohr says. “It’s difficult for people to come in for treatment once a week over long periods of time, due both to cost and time constraints. We are looking at telemedicine programs that can be delivered via a computer or a smartphone to people in their environment at much lower costs than traditional therapy.”

While the results are positive, Mohr says, it’s premature to make recommendations for patients regarding use of stress management therapy. “I don’t want to see patients decide not to take their medication and use this instead,” he emphasizes.
ONLINE EXTRAS:
Visit wardroundsonline.com to see a video from Senator Mark Kirk.
When Illinois Senator Mark Kirk suffered a severe stroke in late January, his celebrity cast renewed light on this third-leading cause of death in the United States. After undergoing emergency brain surgery at Northwestern Memorial Hospital, Kirk publicized his ongoing recovery at the Rehabilitation Institute of Chicago (RIC). As the 52-year-old legislator regains his ability to walk, his physical rehabilitation efforts—documented in a YouTube video produced by his office in May—underscore what legions of stroke patients and their families already know: RIC is a national leader in stroke injury rehabilitation care.

RIC’s reputation for helping individuals regain functional independence, following what is often dubbed a “brain attack,” attracts patients from around the world. Many come to the specialty hospital to overcome the mobility, memory, and/or communication problems caused by stroke. RIC discharges more stroke patients back into the community than any other regional or national rehabilitation facility. RIC serves a broad range of stroke patients, from the medically complex to those striving to return to active lifestyles; nearly half are younger than age 55. The only federally designated Rehabilitation Research and Training Center for Stroke by the National Institute on Disability and Rehabilitation Research, RIC remains at the forefront by taking full advantage of new discoveries—many driven by Northwestern University Feinberg School of Medicine investigators.
“If there’s enough basic science data indicating that a novel therapy might safely provide the best means of recovery, then our philosophy has been to immediately start applying it,” explains Richard L. Harvey, MD, RIC’s medical director of stroke rehabilitation and associate professor of physical medicine and rehabilitation (PM&R) at the Feinberg School. “Let’s not wait for the definitive study and the clinical trial. Let’s move ahead, and stay ahead, of everyone else.”

Case in point: in 1993 a radical concept for improving impaired arm function post-stroke was described in a small study published in the Archives of Physical Medicine and Rehabilitation. It called for restraining the unimpaired arm to encourage patients to retrain their impaired one. Until that point, conventional rehabilitation therapy had focused on the “good” arm to perform daily tasks. Three years later, RIC began implementing elements of this novel method. In 2000, a larger study known as the EXCITE trial appeared in JAMA: it significantly advanced stroke rehabilitation by showing that this restorative therapy improved function. Says Dr. Harvey, “While RIC didn’t participate in this particular study, we had already translated this research into clinical care to benefit our patients.”

At RIC…therapists coax their patients to take as many steps—missteps, too—as they can handle.

The recently completed preliminary study involving 22 subjects has yielded walking speeds 50 to 200 percent faster than what was expected in the sub-acute stroke patient population. Three-to six-month follow-ups have shown no significant drop-off in walking ability. The basic principles of the step study now have become RIC’s standard of care for patients who can tolerate it and most benefit from the intense training.
LEADING-EDGE INTENSITY
Supported by a harness clipped to a ceiling-mounted track, Ryan Marron of Perth, Australia, slowly makes his way around RIC’s newest Patient Recovery Unit which opened in January. A former police officer, Marron is relearning how to walk. While on the job in the Australian Outback, Constable Marron came down with encephalitis after a mosquito bite more than a year ago. Paralyzed and unable to speak, he arrived in Chicago this spring to avail himself of the hospital’s renowned rehabilitation specialists and cutting-edge therapies prominently showcased on this 24-bed unit.

The state-of-the-art facility features a variety of revolutionary technologies, including an antigravity gait track that loops the entire 9th floor unit. A therapy gym includes sophisticated robotic equipment to assist with walking and arm therapy for patients with stroke, brain or spinal cord injuries, or neuromuscular impairments. “Smart Rooms” contain lighting that complements a patient’s natural circadian rhythm and flat screen TV monitors that provide in-room patient education, entertainment, and communication programming. Designed to further advance the hospital’s focus on aggressive and progressive therapeutic intervention, the new unit boasts technologies and specially trained staff found in few other rehabilitation facilities nationwide.

“RIC and our staff stand out among other rehabilitation hospitals because we know how to effectively push people harder to make gains,” says Elliot J. Roth, MD ’82, GME ’86, medical director of the unit and Paul B. Magnuson Professor of Rehabilitation Medicine and chair of PM&R. “Everyone on this unit understands the importance of safely helping patients reach their maximum during therapy to achieve the greatest recovery. We also merge science with patient care.”

While the new, brightly colored unit expands inpatient capacity, it also serves as a dynamic test-bed for a novel concept that fuses active medical research with clinical care. This “experiment” will ultimately shape planning for RIC’s replacement research hospital to be completed in 2016. The world’s first Ability Lab™ is a unique space that allows investigators to rub shoulders 24/7/365 with patients, clinicians, and therapists to, hopefully, accelerate translational neuroscience research discoveries to achieve the best recoveries, if not the potential for cures.

“In this environment, we believe patients will tell us what problems we need to solve—better and faster,” explains Joanne C. Smith, MD, GME ’92, RIC president and CEO. “The transfer of knowledge on this unit among and between everyone involved has been inspirational. It’s been a good, live validation that this is truly the future of our field.”

For investigators like Dr. Hornby and his research team, their studies have come to life in the Ability Lab™. “It has given us a better understanding of the barriers of providing evidence-based practice in the realities of clinical care, especially in the acute-care setting,” he explains. “Namely, how data in a fish bowl of a lab may or may not work.”

Physical therapist Nicole Surico, PT ’10, believes the closer collaboration between clinicians and researchers and on-the-floor problem solving has already greatly benefited her patients.

“The ability to intervene early while patients are in the very acute phase of recovery after a stroke or other neurological injury is exciting,” says Surico, who previously worked on RIC’s brain injury floor. “By the time studies appear in the literature, the information is often no longer current. Here, through our day-to-day interactions with researchers, we have the opportunity to start implementing findings immediately after they are proven beneficial.”

No matter where new advancements originate, RIC has effectively translated them into improved rehabilitative care. With the launch of the innovative Ability Lab™ the hospital, which has been ranked No. 1 for rehabilitation by U.S. News & World Report for 22 consecutive years, continues to narrow the gap between mere research ideas and the tangible reality of helping patients to regain and re-imagine functional independence in ways they never thought possible.

Through day-to-day interactions with researchers, clinicians have the opportunity to start implementing findings immediately after they are proven beneficial.
AN ALUMNI CONGA LINE SNAKES THROUGH REVELERS ON THE DANCE FLOOR DURING THE ALUMNI BALL.
George Bulkley, MD ’42, professor emeritus in the Department of Urology, came back to celebrate his 70-year reunion...

The Office of Minority and Cultural Affairs (now called the Office of Diversity) held an event recognizing 20 years of activities and progress...

James Cooke, MD ’82, celebrating his 30-year reunion, met up with his father, Weldon Cooke, MD ’52, who was marking six decades since his medical school graduation...

Dean Eric G. Neilson, MD, unveiled the newly renovated Method Atrium and Alumni Hall in the Ward Building, which included a remodeled hallway, historic photos, TV screens, and a donor wall...

These were just a few of the highlights when nearly 600 alumni, guests, faculty, and students met up on April 27-28 for a weekend of food, fun, and education at Northwestern University Feinberg School of Medicine.

“I have a fondness for Northwestern and a love for the medical school,” says Charles Koopmann, MD ’69. “My four years here were great, and it is also great to see how the program has changed. Students are encouraged to take more...
Top: These gentlemen represented three generations of urologists at the Welcome Luncheon. They include George Bulkley, MD ’42, GME ’49; Henry Drinker, MD ’52, GME ’59; and James Masterson, MD ’62.

Middle: Student Senate representatives attended the Alumni Ball, helping to escort the Class of ’62 attendees to the dance floor as they were recognized by Dean Neilson.

Speaking with our alums, I received tips, advice, and a better perspective on specialties, practice models, and residencies.

varied courses and have opportunities for joint degrees such as studying the humanities and obtaining a Masters in Public Health.”

Paul Devlin, a first-year medical student, attended a mentoring event where alumni answered current students’ questions about their careers.

“I was able to hear the stories of people who have gone through the program, who have travelled this path before,” says Devlin. “Speaking with our alums, I received tips, advice, and a better perspective on specialties, practice models, and residencies.”

The whirlwind of weekend activities started with a continuing medical education program on Friday morning and concluded with the Alumni Ball on Saturday night, which included the presentation of the Distinguished Alumnus Award to Eugene A. Bauer, MD ’67, and the Dean’s Award to Andrew D. Bunta, MD ’67, vice chair of the Department of Orthopaedic Surgery.

“Looking back, the best part of medical school was the personal interactions not just with students, but with various professors whose advice and mentoring made a huge difference in my life,” says Bauer. “Professors at Feinberg gave us a feeling of empowerment and possibility. They prepared us to go out into the world, and instilled in us the belief that education is a lifelong endeavor.”
As all researchers are well aware, success does not come overnight. John “Jack” A. Kessler, MD, the Ken and Ruth Davee Professor of Stem Cell Biology, chaired the Ken and Ruth Davee Department of Neurology and Clinical Neurological Sciences for 12 years, turning it into one of the nation’s top neurology clinical and training programs.

“I think he is viewed nationally and internationally as a leader in neurology and someone who is highly respected for the way he has integrated science and clinical education in his work,” says Clifford Saper, MD, PhD, who trained under Kessler as a resident more than 30 years ago at Cornell University Medical Center, and is now chairman of the Department of Neurology.
Neurology at Beth Israel Deaconess Medical Center. Saper recommended Dr. Kessler for the position as chairman to Lewis Landsberg, MD, who was the dean of Northwestern University Feinberg School of Medicine at the time.

Kessler, 65, came to Northwestern as head of neurology in July 2000 and envisioned the department’s potential. With a knack for recruiting exemplary people, he significantly increased the number of faculty and grew the department into nine divisions.

By 2012, the department gained national prominence, rising from unranked to 11 in the U.S. News & World Report rankings for neurology and neurosurgery—the highest ranking ever of any Northwestern Memorial Hospital category.

During this time, faculty were able to grow their clinical programs and make significant breakthroughs in drug discovery and treatment of Alzheimer’s, Parkinson’s, memory loss, ataxia, multiple sclerosis, amyotrophic lateral sclerosis, epilepsy, diabetic neuropathy, and other neurological diseases. The Northwestern Brain Tumor Institute has blossomed into the region’s busiest neuro-oncology program, and the sleep program evolved into a national model.
LEADING BY EXAMPLE

Together with his colleagues throughout the years, Dr. Kessler has published more than 200 papers and served on numerous clinical, research, and business panels.

Sharing a wealth of experience, he advised his faculty members on securing grants, building their careers, navigating the tenure track system, managing their time, deciding what committees to serve on, and when to say no.

“It has never been about him. It’s about the department,” says Jeffrey Raizer, MD, professor of neurology and medicine-hematology/oncology, whom Kessler recruited to lead the medical neuro-oncology program in 2003. “He knows that our success is his success.”

“Many times chairmen can create anxiety among young faculty, but he told us early on not to worry, that he had complete confidence in us and would support us as needed,” says Puneet Opal, MD, PhD, associate professor, who specializes in degenerative diseases.

On the business side, Northwestern’s neuro department has been financially successful with the support of benefactors like the Davee Foundation.

Despite the need to produce clinical revenues, Jay Gottfried, MD, PhD, associate professor, who specializes in olfactory function and its relation to Alzheimer’s, adds that Kessler protected faculty research time. Nearly half of full-time faculty are now NIH-funded, and neurology has become a big driver in collaborative neuro-biology science research throughout Northwestern.

“He has been a very important part of creating a vibrant neurosciences community, and I think that without him, neurology would not have been able to play that kind of role,” says Dr. Gottfried.

Even now, Dr. Kessler continues to meet with residents daily to discuss patients and conduct teaching. He talks them through cases and discusses career interests. Initially, the program funneled residents only to clinical paths, but now also supports the pursuit of bench research.

STEM CELL PIONEER

Kessler was an early pioneer in a new approach to regenerative medicine—reversing disease and repairing damaged cells, rather than simply suppressing pain. He believes stem cells hold the key to finding what goes wrong in neurological conditions and future treatments that will alter disease progression.

When his daughter Allison was paralyzed from the waist down after a skiing accident in January 2001, he redirected some of his research into spinal regeneration.

In his 2007 Peabody Award-winning film “Mapping Stem Cell Research: Terra Incognita,” Kessler puts a human face on the promise of stem cell research. He also blasts politics and irrational fears that impede progress, something he continues to do as an activist to preserve research funding.
Looking Forward

Since stem cell research is in its infancy, the best is yet to come. After finishing his run as chair, Kessler continues to devote himself to research and academic life. He is often asked when these elusive stem cell and other neurological therapies will be available—but, because of the uncertainty in exploratory research and the government approval process, he can’t provide a definitive answer.

Evoking an analogy to building with bricks, he says, “We are putting all the bricks in place, and I can tell you that the amount of bricks that have been added over the past 10 years is extraordinary. It’s incredible the things we can do now that we couldn’t even think about 10 years ago.”

“We appreciate the contributions that Jack has made through the years to Northwestern and to the fields of neurology, regenerative medicine, and stem cell biology,” says Eric G. Neilson, MD, vice president for Medical Affairs and Lewis Landsberg Dean of the Feinberg School of Medicine. “And we look forward to watching continued progress as he and other Northwestern researchers work to address some of the most debilitating diseases that affect the central nervous system.”

There is always so much that we still need to do and always that sense of excitement about what might come in the future.

He hit it off with Samuel Stupp, PhD, Board of Trustees Professor of Materials Science and Engineering, Chemistry and Medicine, and director of the Institute for BioNanotechnology in Medicine. Equally passionate about their work, Stupp says that together they are “like an explosion!”

Stupp, with his nano-engineered materials, and Kessler, with his central nervous system prowess, are working toward clinical trials to discover how to revive motor and sensory functions for patients with damaged spines. The vexing problem is finding what signals tissue to regenerate into central nervous system tissue. As partners for more than a decade, their NIH-funded work has yielded success inducing spinal cord regeneration in mouse models.

In another quest, Kessler and Stupp are joining other investigators to find new treatments for glioblastoma. They recently resurrected their work after finding that nanostructures might combat this highly aggressive form of brain cancer.

“I always walk out inspired after we have a research meeting,” Stupp says. “There is always so much that we still need to do and always that sense of excitement about what might come in the future.”

Following Japanese and American breakthroughs in induced Pluripotent Stem Cells (iPS), Dr. Kessler advanced stem cell use for university research by opening the Northwestern Human Embryonic and induced Pluripotent Stem Cell Facility. It handles the time-consuming task of growing iPS cells, human adult skin cells programmed to act like embryonic stem cells.

“"
President’s Message

On July 21, 2012, a memorial service was held at Northwestern Memorial Hospital for a long-term faculty member of the Northwestern University Feinberg School of Medicine. His name was Robert G. Addison, MD ’49, and he died peacefully on March 15 at the age of 90. I had known Dr. Addison as a medical student, resident, colleague, and finally, as my patient.

Because I had known him for such a long time, his family asked me to speak at the memorial service. Up until the morning of the service, I was at a loss as to what I was going to say. Then it dawned on me that Dr. Addison was an exemplary mentor and role model.

Medical educators often talk about the hidden lessons that are learned from faculty members who serve as role models. In fact, Dr. Addison left me with four important lessons. First, I learned to treat patients as people and not as diseases. Second, I was taught that no matter how old you are you can still reinvent yourself and life can be both challenging and fun. Third, he showed me that life without purpose is not living. And lastly, I learned that the cycle of life is inevitable and one should face the end of life with dignity and acceptance.

Dr. Addison was an outstanding mentor and role model to me. At Northwestern, we are quite fortunate, that the Medical Alumni Association has many outstanding alumni who, like Dr. Addison, have taken the time to make a positive impact on medical students and trainees. This mentorship is what makes the Feinberg School a leading example in the world of medicine and a great school to come back to.

I hope to see everyone at next year’s reunion on April 19 and 20, 2013.

Have a fantastic fall!

Carpe diem,
Jimmy Hill, BA ’71, MD ’74, GME ’79
President, Alumni Association
j-hill2@northwestern.edu

Alumni National Board Reaches 20-Year Milestone

During the 110th Alumni Weekend celebration of Northwestern University Feinberg School of Medicine, the Medical Alumni Association met for its twice-yearly board meeting. Calling the meeting to order, alumni President Dr. James Hill noted the 20-year anniversary of the Alumni National Board before introducing Donald Lloyd-Jones, MD, chair of the Department of Preventive Medicine, who talked about the “Changing Prevention Paradigms.”

Just months before the Patient Protection and Affordable Care Act passed muster in the Supreme Court, Dr. Lloyd-Jones cited a figure of $300 billion in annual direct costs due to cardiovascular (CV) problems alone, which will rise to $820 billion by 2030.

“We have to communicate risk better,” says Lloyd-Jones, who helped develop the American Heart Association’s strategic impact goals to improve the cardiovascular health of America by 20 percent by reducing deaths. “Is it genes or is it behavior? The answer is that behavior makes a huge difference.”

Referring to an initial study published in JAMA in 1999 by preventive medicine pioneer and Lloyd-Jones’ predecessor as first chair of the department Dr. Jeremiah Stamler, “Those who maintain a healthy profile to age 45 are substantially more likely to live a longer, healthier life free of disease and with better quality of life.”

One way physicians can help communicate the likelihood of cardiovascular disease better is through the use of health assessment tools. The National Heart, Lung and Blood Institute developed a 10-year Heart Attack Risk Calculator for clinicians and will soon offer a lifetime risk calculator.

Armed with this information, patients can make changes like adding exercise to their daily regimen, which acts like a statin drug to change the biology of arterial plaque, thereby reducing disease levels.

Look for a feature about the work of Dr. Donald Lloyd-Jones, who was recently named director of the Northwestern University Clinical and Translational Sciences Institute (NUCATS), in the fall 2012 issue of Ward Rounds.
Diversity Initiatives Continue to Enrich Medical Experiences at Feinberg

"Diversity promotes excellence; at the medical center, within the community, and in our own lives."

Those remarks, delivered by John Franklin, MD, associate dean for minority and cultural affairs, were part of an Alumni Weekend event marking 20 years of diversity initiatives at Feinberg.

Today, students need not look far to be reminded of the school’s cultural history. In 2004, with the dedication of the Daniel Hale Williams Auditorium, a bust of the nation’s first African American cardiologist was placed in the Olson-McGaw Pavilion. In April, a framed portrait of the Class of 1883’s most famous graduate was hung inside the renovated Ward Building corridor.

Thirty feet away, the door leading into the Office of Diversity is always open. Since 1992, it has played an integral role in school policy, student life, and long-standing traditions of belonging and inclusion.

"The staff has been like family to me, and I can talk to them as easily as I talk to my classmates," says first-year medical student Manuel Bramble, co-president of the Student National Medical Association at Feinberg. "I am from Maryland and nowhere near home, so it’s nice to have a feeling of family on campus."

Dr. Franklin, associate professor in psychiatry and behavioral sciences and surgery-organ transplantation, considers that feeling of belongingness paramount to the future of Feinberg.

“We recognize various kinds of diversity from socio-economic and gender to race, so that everyone realizes that this is a welcoming place, and a place where they can grow,” he says. "With Medical Spanish and other programs, we also seek to help build cultural competency skills in future physicians, so that they can more easily relate to a greatly diverse population."

...continued on page 30...
A MISSION TO ENHANCE VISION THROUGHOUT THE WORLD

WRITTEN BY SARAH PLUMRIDGE
Steven Anderson, MD ’92, wakes to the sound of roosters crowing outside his house, which is made largely of screen and is located in one of the world’s oldest rainforests. The ophthalmologist walks to work at Bethesda Hospital in West Kalimantan (Borneo), Indonesia, Monday through Thursday, and spends his day in clinic or surgery. On Fridays, he and his team travel by truck, boat, or sometimes a small plane to clinics in distant villages.

“We have trained a surgeon and a team of nurses who specialize in eye care,” he says. “We have a full-time eye clinic with an operating room and have developed an outreach program that provides free eye-screening services to remote villages in our region. A few times a year the eye team also conducts surgical outreach projects to even more remote locations where it would be difficult for patients to get to the hospital for care.”

More than four years ago, Dr. Anderson decided to sell his private practice in Minnesota and move his wife and three children to Indonesia so he could accept an invitation to help Bethesda Hospital build a new eye program. Since his arrival in 2008, he says his team has been blessed to see the creation of a quality program for the poor.

“Opportunities like this don’t come along every day,” he explains. “Making major changes in our lives, personally and professionally, to accept the invitation to develop the new eye program at Bethesda was a big decision for us. However, our family feels very fortunate to have this opportunity to live and work here and be a part of the efforts to serve the poor in this remote part of the world.”

GEM IN THE MAKING
According to the World Health Organization, there are about 40 million blind people in the world today, and 285 million visually disabled, 90 percent of whom live in the developing world,” says Anderson. “Of all the causes of blindness, cataract represents almost 50 percent of cases, which can be cured with a 10-minute operation. Eighty percent of all blindness is avoidable, preventable, or curable.”

Realizing that much more needed to be done to provide eye care in faraway places, Dr. Anderson founded Global Eye Mission (GEM), a US-based, non-profit organization that facilitates the development of long-term mission eye programs in underserved regions.

GEM is fully supported through donor contributions, primarily made by individuals. None of the foreign mission doctors receive a salary from the local hospitals where they serve.

With the help of ongoing funding and volunteers, GEM continues to grow, now with programs in Kenya, Tanzania, Gabon, Central Asia, Ecuador, and Peru, as well as having other partnerships around the world, such as in South Sudan and Burundi, Africa. While each is at a different stage of development, the combined GEM-affiliated programs examine an estimated 28,000 patients and perform 3,000 surgeries per year.

“We recognize the magnitude of the global situation regarding blindness is far beyond the ability of any one organization to address on its own,” says Anderson, who received the Outstanding Humanitarian Service Award from the American Academy of Ophthalmology in 2011. “However, we hope through strategic partnerships and an emphasis on long-term, reproducible solutions, we can leverage our efforts and resources to make significant contributions in the regions where we work and beyond.”

SOLID MEDICAL GROUNDING
Dr. Anderson graduated from Northwestern University Medical School in 1992. He then completed his ophthalmology residency at the University of Minnesota and headed to Bethesda Hospital.

“This was my first medical mission experience and through it I was able to see firsthand the great need for quality medical care in the developing world,” he explains.

He credits Northwestern for providing the solid medical foundation that has contributed to his current work. “Patients in the developing world and in the U.S. who come to an eye clinic frequently have other non-ophthalmic systemic medical conditions as well. Having a solid general medical background helps in identifying and referring these patients for further treatment,” he says.

Even after Dr. Anderson entered a private practice in ophthalmology in 1996, and worked as a clinical instructor at the University of Minnesota and the VA Hospital in Minneapolis, he remained involved with Bethesda Hospital and several other short-term ophthalmology mission projects. Each year, he would dedicate two weeks to three months at a time serving the needy in other countries.

BACK TO THE U.S.
Dr. Anderson and his family have come to appreciate the beauty of their rainforest setting. His wife home schools their three children, maintains their household, and helps host foreign guests to the hospital. His children enjoy climbing trees, swimming in a nearby jungle pool made from a dammed-up stream, and playing outside as they have “summer” weather 365 days per year.

“The people here are very warm and friendly and we have made many good friends. While there are complexities to living in a developing country, we find there is a simplicity which can be refreshing,” Anderson says. “For example, we eat three meals together daily as a family and we have limited Internet and no TV.”

With his children now ages 8, 10, and 13, Dr. Anderson plans to return to the United States in May 2013 to integrate back into private practice while continuing in a leadership role with Global Eye Mission. He will support the program in Indonesia with periodic visits as well as ongoing consulting and financial support. He also plans to increase his involvement with other GEM-affiliated programs.

“We are hopeful that the eye units we support will become examples for others to emulate and centers to teach principles that others can apply, thereby multiplying our efforts into the future,” he says. ■
A Role Model
FOR DPT/PHD PROGRAM

WRITTEN BY:
Roger Anderson

PHOTOGRAPHY BY:
Roger Anderson

ARTICLE DETAIL:
Joint program marries two disciplines for improved rehabilitation therapies and technologies for movement disorders.

Theresa Sukal Moulton, DPT/PhD ’12, has the mindset of an engineer and the touch of a physical therapist. She also boasts an effervescent personality and smiling baby boy.

The first-ever graduate from the doctor in physical therapy-doctor of philosophy in engineering dual-degree program, Sukal Moulton arrived at Northwestern in fall 2003 to earn a PhD from one of the nation’s top universities.

But as a biomedical engineering graduate student working in the lab of Jules Dewald, PT, PhD, chair of the Department of Physical Therapy and Human Movement Sciences (DPTHMS), Sukal Moulton realized she wanted more.
As it happened, her pursuit of knowledge coincided with Dr. Dewald’s drive to offer a first-of-its-kind program meshing the precision of an engineer with the applied science skills of a physical therapist.

“I remember the thing that stuck with me about Jules when I visited as a perspective student was his passion about the research,” she says. “He’s really good about bringing you in and making you really excited about what is going on in the group. Through his success, I learned that when you are passionate and care about something, you can find that niche that makes it less about work and more about the excitement of learning.”

In the Dewald lab, Sukal Moulton utilized robotics to research movement disorders in adults who had experienced a stroke, and in 2006, she began PT school to gain a broader understanding of the clinical components to help inform her research and refine her interactions with participants.

“I think that having clinical experience really improved my ability to carry out successful experiments with young people,” explains Sukal Moulton, who focused on pediatrics for her PhD research. "It was a very natural flow to start the DPT/PhD program because it was around the time when I was trying to figure out how I could gain practical, hands-on experience in the clinic.

“It was a really awesome opportunity to open up a new facet of investigation within Dr. Dewald’s lab,” she says. "I think everybody does that in their own way, but when you work with a totally different population, it is very obvious. I had to convince people working on adult research that we cannot expect the same from kids and that we need to approach this differently, even if we are using similar measurement techniques.”

More than eight years after earning an undergraduate degree in biomedical engineering from the Catholic University of America and moving to Chicago, Sukal Moulton stood in front of friends, family, peers, and professionals to defend her doctoral dissertation in January. Focused on the use of engineering tools to quantify the expression of upper extremity weakness, loss of independent joint control, and loss of independent limb control in children with weakness affecting one side of the body, the research illustrates that the timing of brain injuries in infants and youth affects movement disorders in adolescence.

“One of the most humbling experiences of my life was during my PhD defense, being at the front of the room and seeing the lecture hall nearly full with friends and family,” she says. “It was just amazing to see that everyone was there to support me and hear what I had to say.”

In her next endeavor, the newly minted PhD will have the ear of renowned scientist Diane Damiano, PT, PhD, as a postdoctoral fellow at the National Institutes of Health. Returning to Washington, a mere three hours from her native New Tripoli, Pennsylvania, Sukal Moulton will investigate the coordination of lower extremities in children with cerebral palsy using non-invasive brain imaging.

Walking the halls of the Department of Physical Therapy and Human Movement Sciences, it’s easy to see Sukal Moulton is part of the Feinberg family.

“I had the chance to interact with the faculty as a student and since graduating I’ve been invited back to help with teaching and research, and interact with them as a peer,” explains Sukal Moulton, who has also been working as a pediatric PT at The Rehabilitation Institute of Chicago since 2009. “It’s been an honor to be asked to participate in the education of our students, and I really appreciated the opportunity to see if teaching was something that would be enjoyable to me.”

Ultimately, the laboratory is where Sukal Moulton will be spending the majority of her time. That is, when she’s not busy with son Theodore, born in March.

“From a timing perspective it’s been really nice to step back and take my foot off the gas pedal before I start my post-doc in September,” she says. “This summer provided the chance to be a mom and focus on that new job. Having Theo has been life changing, and amazing in unexpected ways.”
A NEW AGE OF ACTION
Seeking population parity in the medical professions is not a new agenda for the Association of American Medical Colleges, but it was a decade-long push beginning in 1991 that provided a monumental shift. With a goal of seeing 3,000 underrepresented minorities entering medical school by the year 2000, U.S. medical schools were now obligated to submit proposals and illustrate their impact.

Within four years, the number of underrepresented minorities admitted to MD programs rose 30 percent. At Feinberg, the charge was led by Harry Beaty, MD, assistant dean for admissions.

To support student diversity initiatives, he placed Delores Brown in a newly created minority affairs role, where she served until Tacoma McKnight, MD ’83, GME ’87, associate professor in obstetrics and gynecology, became assistant dean for minority affairs in 1993.

Still in its infancy, the office worked to recruit and support prospective and current minority students.

“Northwestern didn’t really ignore diversity, but our office’s targeted efforts to improve the pipeline through programs like Pathways to Medical Education, had the added benefit of increasing faculty participation,” Dr. McKnight explains.

TODAY’S DIVERSITY OFFICE
Offering support, counseling, tutoring, and mentoring for individuals interested in medicine, the office has continued to evolve. In 2002, Raymond Curry, MD,
“Diversity has to be something you work at, and by having a dean, a director, and a coordinator, it means someone is there to keep the ball rolling on a regular basis,” Dr. McKnight explains. “Over the past decade, some of the seeds that we planted were truly able to grow. I think the current office has done some incredible things, primarily with supporting the students and their diverse set of backgrounds.”

Film series, lectures, curriculum supplements, Safe Space training, and more are all meant to keep students culturally aware, and help build Feinberg’s relationships with community partners and Northwestern Memorial Hospital. The office also supports Northwestern Medicine® pipeline initiatives like the Scholars Program, cofounded by Erica Marsh, MD, assistant professor in obstetrics and gynecology, and the Women’s Health Science Program for High School Girls and Beyond, started by Teresa Woodruff, PhD, director of the Institute for Women’s Health Research. Senior faculty members like James Hill, MD ’74, GME ’79, professor in orthopaedic surgery, have also continually carried forward Feinberg’s mission of diversity.

“I think we’ve been able to do much more than our resources dictate because part of our job is to include others and make diversity the school’s mission,” Dr. Franklin says. “The Feinberg community is incredibly diverse and incredibly talented, and part of our job is to acknowledge and celebrate those facts.”

vice dean of education at Feinberg, made the expansion of diversity efforts a top priority, embarking on a campaign to increase the number of students now classified as “underrepresented” in medicine.

“It made little sense not to have a broader commitment to diversity when we sit in the midst of one of the most diverse cities on the face of the Earth,” says Dr. Curry, professor in general internal medicine and geriatrics. “The physical space of the office was very intentionally placed in the heart of the first floor of the main medical school buildings, and is intended to be a magnet for students.”

After a national search, Dr. John Franklin emerged as the choice to lead what was then the Office of Minority and Cultural Affairs. The refocused efforts and evolution into what the Office of Diversity is today included the addition of office director, Sunny Gibson, and program coordinator, Anita Munoz.
Progress Notes

1950s

Donald Unger, MD ‘51, of Thousand Oaks, Calif., has retired from allergy practice. He writes, “My father, Leon Unger, MD, helped found the allergy clinic at Northwestern. My brother Albert Unger, MD ‘47, founded allergy clinics in Texas and New Mexico. I graduated in 1951 and am a past president of the American College of Allergists. Altogether, the Ungers have practiced allergy for almost 100 years.” Donald’s son, Jeffrey Unger, MD ‘80, is completing work on a medical textbook (“Diabetes Management in Primary Care”-2nd Edition) and a consumer book (“Diabetes for the Disinterested”). Both publications are scheduled for release in fall 2012. Dr. Unger requests extra cups of coffee from all his former classmates as he prepares the manuscripts!

Herbert J. "Tim" Louis, MD ‘54, of Phoenix, Ariz., is retired but still attends a weekly orthopedic conference. Dr. Louis writes, “I spend more time looking after my six children, their seven spouses, 22 grandchildren, and four great-grandchildren. We all try to spend some time at a place in northern Wisconsin that we all adore.”

Alan Nelson, MD ‘58, of Fairfax, Va., retired as special advisor to the CEO of the American College of Physicians. He is a member of the Institute of Medicine and served on the IOM Committee on Essential Health Benefits.

Willard A. Fry, MD ‘59, of Winnetka, Ill., has been retired from clinical surgery for 12 years and he reports that time has passed very quickly. Dr. Fry has been a problem-based learning (PBL) tutor for the past 11 years, working with M2 students at Northwestern University Feinberg School of Medicine. He writes, “That keeps me in good touch with the medical school. NU is getting good med students who are bright, eager, and energetic. I’ve also been helping the M1 students a bit in the gross anatomy lab when the thorax is being studied. For the past 15 years, I’ve been involved with the French exchange, sending NU medical students for clerkships in France, particularly in their senior year. We also work with French students coming to NU for clinical clerkships. On the outside, I tutor reading one day a week at an inner-city school through my college club. I also help with the Chicago Greeters Program where I work with French-speaking tourists in Chicago.”

1960s

Steve Roberts, MD ‘61, of Tyler, Texas, tried to retire but was pulled back to do quality control for data reports from the East Texas Medical Center Cancer Institute to the American College of Surgeons. Dr. Roberts writes, “It’s only part-time, thankfully, so we still have plenty of time to do some of the things we missed earlier. My kids are all physicians and this is hard to explain since medicine was never a dinner table conversation at our house. Joey and I are getting ready to watch our grandchildren go on to college.”

Donald Coder, MD ‘62, of Indian Land, S.C., is in his ninth year of teaching at Shenyang University and Shenyang Medical School. Dr. Coder writes, “It gets better every year. China is a good place to be and the return is great on all the time invested. Opportunities abound.”

Glen Hait, MD ‘65, of Paradise Valley, Ariz., retired from plastic surgery and is now the medical director of a startup company, NudgeRX, which is an Internet-based, intensive post-discharge patient follow-up program with 24/7 live nurse support focused on preventing readmissions and ER visits. Dr. Hait writes that he and his wife Pam still enjoy skiing, hiking, and cycling.

Richard L. Roth, MD ‘67, has been practicing psychiatry in the suburbs of Washington, D.C., for the past 35 years. Dr. Roth writes, “In the morning, I see hospitalized adults and adolescents, and in the afternoon I see patients in my office. I like the variety this offers. As my 70th birthday approaches, I have cut back a little on the number of hours I work, but I enjoy what I do and have no plans to stop.”

Kenneth P. Wolski, MD ‘68, of Tewksbury, N.J., still loves drug development and is now working on the first new mechanism treatment for Parkinson’s disease in 50 years. Another first for Dr. Wolski is his first grandchild, Annabelle.
**1970s**

After 31 years as full-time faculty at UCLA, Allen Nissenson, MD '71, GME '76, of El Segundo, Calif., became emeritus professor and joined DaVita Inc. in 2008 as CMO. Dr. Nissenson writes, "We operate over 1,800 dialysis facilities globally, treating over 140,000 patients. We have also pioneered integrated care management for kidney patients, most recently working with Center for Medicare and Medicaid Innovation on a large accountable care organization pilot. I continue to focus on public policy following a Robert Wood Johnson health policy fellowship working in the U.S. Senate and carry out an extensive research program through DaVita Clinical Research. I remain very happily married to Charna going on 34 years. Our daughter, Ariel, is graduating from Parsons as a fashion designer. We live near UCLA and continue to enjoy the California lifestyle."

Edward Forkos, MD '70, remains “blissfully” retired in Las Vegas pursuing his passion for mountaineering, canyoneering, and rock climbing. Dr. Forkos writes, "My emphasis is on discovering new routes, teaching wilderness medicine, and disseminating the wisdom and skills of mountaineering. Look me up if you need a climbing partner!"

Joseph J. Gugenheim, MD '72, of Houston was appointed to the advisory board of the Northwestern Comprehensive Center on Obesity at the Feinberg School of Medicine. He published a research paper on the epidemiology of obesity in children and adolescents in *Obesity*. He was listed as a Texas Super Doctor by *Texas Monthly* magazine and named one of the top 1 percent of orthopedic surgeons in the country by *U.S. News & World Report*.

Bill Green, MD '73, of Cornelius, N.C., retired from anesthesiology and wife, Elizabeth Boylan Green, DPT '73, retired from physical therapy in January 2012. Dr. Green writes, "We are enjoying our first grandson, William Joseph Green, and all the love without the responsibility. I enjoy traveling and running with my three standard poodles and one Lhasa Apso. I have jogged since my days at NUMS with no injury except one dog bite (not my dog)."

Maryellen Fazen Eckenhoff, PhD '79, and Roderic G. Eckenhoff, MD '78, work together in life and science. With four grown children and one grandson, they are now raising their lab "children" on the topics of general anesthetic molecular pharmacology and what it might have to do with Alzheimer’s disease. Their lab is in the Department of Anesthesiology and Critical Care at the Perelman School of Medicine at the University of Pennsylvania, where Rod is the Austin Lamont Professor and vice-chair for Research.

**1980s**

Ralph Duda, Jr., MD '81, has moved from a vibrant solo clinical endocrinology practice in Springfield, Mo., to bustling Tulsa, Okla. He continues to enjoy clinical practice but also is involved in resident training and clinical research at OU and OSU.

James Patrizi, DPT '84, of Martinez, Calif., is a certified wound specialist with the Veteran’s Administration. He treats veterans with wounds of various etiologies at the Center for Rehab and Extended Care, as well as in the Vascular Clinics at the Martinez, Calif., facility. He is also a featured speaker for Healthpoint Biotherapeutics and Advanced Biohealing. In addition, Jim is a clinical faculty member of Samuel Merritt University for the Doctor of Physical Therapy Program and Carrington College for licensed vocational nurse and physical therapy assistant programs. Jim is married to his lovely bride, Debbie Cassidy Patrizi, DPT '84, a pediatric clinical specialist and manager of the pediatric rehabilitation department at Kaiser Permanente, Oakland, Calif. She manages the physical, occupational, and speech pathology programs at Kaiser, and is the program coordinator for the Autism Spectrum Disorders Clinic at Kaiser. They have two wonderful daughters who are completing their undergraduate work and entering graduate school.

Michael Benson, MD '82, GME '87, of Deerfield, Ill., a clinical associate professor at Northwestern University Feinberg School of Medicine, recently had two papers published and received a grant for immunology research from the Marvin and Kay Lichtman Foundation. Dr. Benson writes, "My oldest daughter will be starting graduate school in speech pathology at Madison in September."

Michael Racenstein, MD '88, of Wilmette, Ill., has been chairman of the Department of Radiology at Alexian Brothers Medical Center since January 2011. He also runs the Women’s Imaging Program. Dr. Racenstein and his wife, Meg, who is a pediatric neuropsychologist with offices in Northfield and Glencoe, have three kids: Mel, 15, Miles, 8, and Mickey, 7.
Matthew Goren, MD ’89, assistant professor of clinical ophthalmology, of Wilmette, Ill., is still practicing and teaching at Northwestern University Feinberg School of Medicine. Dr. Goren writes, “My baby girl is now at Princeton and my baby boy is about to go to college. Molly and I have been married now for 20 years.”

Denise R. Nebgen, PhD ’95, MD ’97, joined the faculty of MD Anderson Cancer Center in Houston in 2011 as an associate professor in the Department of Gynecologic Oncology in the section of benign gynecology. She and her husband Jason and two sons, Christopher, 10, and Sean, 8, have made Houston their home for the past 15 years.

Anjini Virmani, MD ’95, and husband Neil Bhattacharyya, MD, of Brookline, Mass., have two daughters, Sonia and Amber. Bhattacharyya was promoted to professor of otology and laryngology at Harvard Medical School. He is also the associate chief of otolaryngology-head and neck surgery at Brigham and Women’s Hospital in Boston, where he specializes in surgery for chronic sinusitis.

Brian Drummond, MD ’01, of Tucson, Ariz., completed his naval service this summer after 10 years of active duty and will be starting a position at the University of Arizona Department of Emergency Medicine as a clinical instructor.

Clarence Yap, MD/MPH ’04, of San Francisco, is leading the development of a new drug for patients with Achondroplasia, which is the most common form of dwarfism. Dr. Yap writes, “Things are busy on the home front, as my wife and I welcomed our second child last year.”

Jeffrey Fronza, MD ’06, GME ’11, completed a one-year fellowship in advanced laparoscopic and gastrointestinal surgery at Oregon Health and Science University under the mentorship of John G. Hunter, MD. Dr. Fronza accepted a position as a general surgeon with Northwestern Surgical Associates and will serve on the faculty at Northwestern University Feinberg School of Medicine and on the staff of Northwestern Memorial Hospital.

Jenna Karagianis, MD/MA ’11, began a residency in emergency medicine at the University at Buffalo in Buffalo, N.Y., in June 2011.

Wilbur Rowley, MD, GME ’62, ’64, of Williamsburg, Va., writes that he was proud to see his daughter, Northwestern University McCormick School of Engineering graduate Gwynne Rowley Shotwell, on the cover of Northwestern magazine in spring 2012. Shotwell is the president of SpaceX, a cutting-edge company that designs and manufactures rockets and launches satellites into orbit.

John Leyland, MD, GME ’76, of East Peoria, Ill., is retired and involved as a certified guide with the Peoria Historical Society, giving city tours for visitors and scheduled history trolleys. In 2011, he won the Volunteer of the Year award. Last fall, Dr. Leyland taught a four-session class on naval aspects of the War of 1812 for the Osher Lifelong Learning Institute at Bradley University.

Paul Greenberger, MD, GME ’78, of Evanston, Ill., is a professor of medicine in the Division of Allergy-Immunology at Northwestern University Feinberg School of Medicine. He serves on the Institute of Medicine Committee on Assessment of Studies of Health Outcomes Related to the Recommended Childhood Immunization Schedule.

**1980s**

Brian Ewert, MD ’85, was elected to serve as President/CEO of the Marshfield Clinic in Marshfield, Wisc. The clinic provides care to more than 350,000 patients annually throughout central, northern, and western Wisconsin. Care is provided by more than 750 physicians and 8,000 employees at 54 locations.

Beth Malow, MD ’86, professor of neurology and pediatrics, director of the Vanderbilt Sleep Disorders Division, and Burry Chair in Cognitive Childhood Development at Vanderbilt University, received the 2012 American Academy of Neurology Sleep Science Award for Excellence in Sleep Research.

Mark Urman, MD ’88, of Beverly Hills, Calif., was named a Top Doctor by Castle Connolly and U.S. News & World Report. He is also among only 5% of physicians in southern California to be named as a Super Doctor (for the 4th consecutive year). He is the immediate-past clinical chief of the Division of Cardiology and was the inaugural medical director of the Preventive and Consultative Heart Center at the Cedars-Sinai Heart Institute in Los Angeles where he is an attending cardiologist.

**1950s**

John Roberts, MD ’56, received an honor from the Department of Orthopaedic Surgery at The Ohio State University Medical Center in recognition of his enormous contribution to resident education. The John B. Roberts, MD Endowed Fellowship Fund was established with the vision that the proceeds will support the residents’ research rotation. Dr. Roberts has been a member of the orthopaedics department at The Ohio State University since 1967. For the past 45 years, he has been involved in the training of nearly every graduate of Ohio State’s orthopaedic residency program as well as hundreds of surgeons, several of whom still practice in the central Ohio area.

**1970s**

Gilla Davis, MD ’75, in private practice in Wilmette, Ill., was recently named a Distinguished Life Fellow of the American Psychiatric Association, its highest honor.

Mark Nolan Hill, MD ’77, professor of surgery at Chicago Medical School and in a general surgery private practice, recently was awarded Professor of the Year. He also received the 2012 Visionary Award from the Music Theatre Company in Chicago for his dedication to the arts. This is the 25-year anniversary of Dr. Hill’s rock band, Dr. Mark and the Sutures, with the original founding members.
In Memoriam

Justine Borchers, MD '53, of Columbus, Ohio, died March 31, 2012.

Robert H. Hamlin, MD '47, GME '48, of Medina, Ohio, died June 1, 2012.

Elmer C. Johnson, MD '48, of Honolulu, died February 14, 2012.

Richard K. Johnson, MD '58, GME '60, '62, of San Jose, Calif., died May 27, 2012.

Kaylee J. Keller, MD '57, of Sagle, Idaho, died April 1, 2012.

Sanford J. Larson, MD '54, GME '61, PhD '62, of Milwaukee, died March 15, 2012.


Alfred F. Miller, MD '52, of Phoenix, died June 14, 2012.

Harry J. Miller, MD '52, GME '58, '59, of Evanston, Ill., died April 13, 2012.

J. Edward Perez, MD '48, of Menlo Park, Calif., died November 13, 2011.

Douglas E. Smith, MD '70, of Vallejo, Calif., died March 21, 2012.


George E. Wendel, MD '44, of Fairfax, Va., died May 29, 2012.

Richard Lindsey Wooten, MD, GME '51, of Memphis, Tenn., died March 29, 2012.

Upcoming Events

For more events, visit the calendar on the home page of wardroundsonline.com.
Did you work at the Chicago Maternity Center?

In the Ward Rounds history blog, we share excerpts from alumnus Tim Hunter’s, MD ’68, journal entries about working at the Chicago Maternity Center (CMC) on Maxwell Street. Every 14 days, a group of five or six different fourth-year medical students from Northwestern University and other Chicago medical schools would be on call to go out to the poorest neighborhoods in the city, responding when help was needed to deliver a baby. The center originally opened in 1895 with four rooms in a tenement house and was called the Chicago Lying-in Dispensary. The purpose was to help poor women birth their children at home, while providing training for future physicians on the art of midwifery. David Kerns, MD ’68, is writing a book (due out in 2013) about training at the CMC in the weeks before and after Martin Luther King, Jr. was assassinated. To find out more, visit the history blog at www.wardroundsonline.com.

Ward Building Now Has Donor Wall

Although it’s still a work in progress, the Ward Building renovations that began in February were unveiled during Alumni Weekend in April.

Attendees enjoyed the Welcome Luncheon in the renovated Method Atrium, which now includes a Donor Wall (those whose cumulative gifts have totaled $1 million or more), as well as an Endowed Professor plaque, an Endowed Scholarship plaque, and the Henry and Emma Rogers Society plaque for bequests to the medical school to recognize different kinds of giving. Historical photos line the gleaming corridor that connects the Ward and Morton buildings.

Still to come are the installation of display cases that will house historical texts and other treasures from the Galter Health Sciences Library Special Collections.

Four is Twice as Good as Two!

Good news! After nearly two years of printing only two issues annually, we are returning to four print issues of Ward Rounds magazine! We will continue to deliver additional content online, but for those who like to take the magazine home and enjoy it over a cup of coffee or during a daily commute, you can spend more time reading about the school and your fellow alumni. We will gradually decrease the number of pages over the next year to help defray the extra costs.

If you would like to comment on this change, please send an e-mail to ward-rounds@northwestern.edu or tell us what you think by completing the Ward Rounds survey included in this issue or on the home page of www.wardroundsonline.com.

ADDITIONAL PHOTOGRAPHY:
Roger Anderson: p. 28
Peter Barreras: p. 2
Randy Belice: pp. 16–19, 25, 30 and 31, inside back cover
Andrew Campbell: p. 3
Teresa Crawford: p. 23, #4
Nathan Mandell: p. 8
James Masterson, MD ’62: p. 18, #1
Courtesy of The Rehabilitation Institute of Chicago: cover, inside front cover, pp. 12–15
Jim Ziv: pp 22, 23

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flickr.com/feinbergschoolofmedicine
Show your school pride on your sleeve...

...and elsewhere, too.

Announcing a new way to shop for Northwestern medical school merchandise — just visit our online store where you’ll find the latest in T-shirts, sweatshirts, mugs, hats and more! Here you can add quality items to your own wardrobe and pick up some great gifts as well.

www.cafepress.com/feinbergschoolofmedicine
Ward Rounds Summer 2012
Reader Survey

HOW ARE WE DOING WITH
WARD ROUNDS?

A lot of time and energy are put into creating Ward Rounds, Northwestern University’s medical school alumni magazine, but if it’s not meeting your needs, we need to know. Please take a few minutes to complete the reader survey on the last page. Tell us how you get your information about the medical school, what you like to read in the magazine, and provide your suggestions for improvement or give us any story ideas you have.

WE LOOK FORWARD TO HEARING FROM YOU!
DO NOT PRINT.
THIS SECTION IS CUT OFF.
Ward Rounds Reader Survey

Your opinions about *Ward Rounds* are important to us. Please give us your input about what’s working and what’s not in our communications. We look forward to hearing your thoughts and ideas.

For your convenience, visit wardroundsonline.com to respond to our survey online or mail your completed hard copy by October 31.

1. Which sections of Ward Rounds do you value most (in print or online)?

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2. How do you get information about Northwestern University Feinberg School of Medicine? Please check all that apply and number their order of priority.

- Ward Rounds
- Medical School Website
- “My Northwestern Medicine” weekly newsletter via e-mail
- Other Alumni
- Annual Giving Report

3. How often do you read *Ward Rounds* magazine and in what format?

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4. How long do you spend reading each issue (in minutes)?

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5. Have you visited the online version of the magazine? There is a history blog, videos, and slideshows that can’t be shown in the print. Please check all that apply.

- Feature stories
- Videos
- Progress Notes
- Slideshows
- Alumni Profiles
- Calendar Events
- History Blog
- Never look online

6. Demographic data. Check all categories that apply.

- MD Alumni
- Resident/Fellow
- PT Alum
- Other FSM Alum
- MD, PhD, PA, PT or other Student
- Faculty
- McGaw Medical Center/NU official
- Donor
- Other

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Comments/story suggestions