

STRATEGIC PLAN
PROGRESS REPORT 2015

NORTHWESTERN WILL



Northwestern
University

Dear members of the Northwestern community,

We are pleased to provide our faculty, staff, students, and alumni with this annual report on the University's progress in implementing the *Northwestern Will* strategic plan. As this report makes clear, Northwestern is making significant strides in each of the plan's four pillars: Discover, Integrate, Connect, and Engage. From advances in biomedical research, to new programs reaching across academic disciplines, to increased connections between Northwestern and Chicago, to efforts in global engagement, Northwestern has passed milestones in these four key areas. This year's report takes a different approach from the first two. Instead of a sentence or two each about dozens of initiatives, four longer accounts focus on cumulative progress in the key areas since the strategic plan commenced.

This progress has been made possible to a great extent by the success of *We Will. The Campaign for Northwestern*, the \$3.75 billion fundraising campaign. Since the campaign was announced publicly just over a year ago, it is a remarkable achievement that total giving already exceeds \$2 billion. This enormous support has enabled the University to jump-start several key initiatives in the life sciences, humanities, social sciences, fine arts, and the student experience, among other areas. Equally important are the efforts of the dedicated faculty, staff, and students who are contributing their time, talents, and energy to making Northwestern an even greater institution.

The initiatives begun since the strategic plan was announced have already changed both the physical and the academic landscapes of Northwestern for the better, and advancement will continue. Northwestern's leaders laid the cornerstone of the University's first building 160 years ago, and, guided by the strategic plan, we continue to grow on that foundation.

Sincerely,

A handwritten signature in black ink, appearing to read "Morton Schapiro". The signature is fluid and cursive, with the first name "Morton" written in a smaller, more compact script than the last name "Schapiro".

Morton Schapiro
President and professor

A handwritten signature in black ink, appearing to read "Daniel Linzer". The signature is fluid and cursive, with the first name "Daniel" written in a smaller, more compact script than the last name "Linzer".

Daniel Linzer
Provost



DISCOVER

Robust and Growing Biomedical Research

Northwestern follows through on the strategic plan each year by adding major resources across the University—new research centers, academic partnerships, and state-of-the-art facilities—for advancing knowledge and innovation. Every area of Northwestern is pursuing research discoveries that will benefit humanity—none more visibly than the Feinberg School of Medicine, the University’s leading recipient of sponsored research grants. Feinberg’s total research funding grew by 10.4 percent in 2013 and 12.1 percent in 2014, and further growth is projected with the construction of the Louis A. Simpson and Kimberly K. Querrey Biomedical Research Center.

Biomedicine, the University’s largest research area, is not just the domain of Feinberg researchers, however. They collaborate with colleagues in the basic life sciences, chemistry, and engineering to determine the fundamental causes of today’s most pressing health problems and to develop diagnostic tests and treatments. For example, researchers representing a range of disciplines are working in the emerging field of synthetic biology, using tools and concepts from physics, engineering, and computer science to build new biological systems with the aim of eradicating



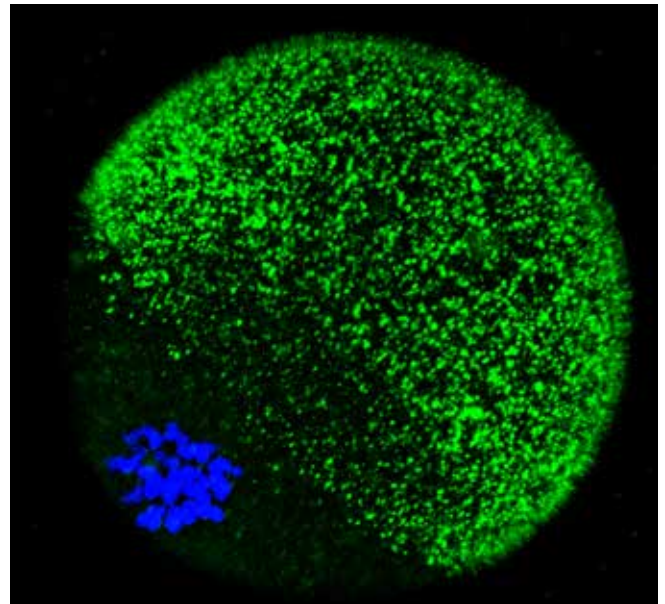
pervasive disease. Much of their research focuses on reprogramming cells by changing their DNA.

In recent Northwestern discoveries, investigators found that removing a specific protein greatly reduces the ability of breast cancer cells to spread to other organs; identified a protein's key role in cell and physiological aging; and developed (in collaboration with Japan's Tohoku University) an experimental drug that prolongs lifespan in mice. Researchers studying Alzheimer's disease are testing new drugs to slow memory loss, prolong life, and reverse dementia damage. Work by researchers at Northwestern and the Rehabilitation Institute of Chicago is improving robotic arm control by simulating the sensation of a missing hand and

Above, synthetic biologists such as (from left) professors Neda Bagheri, Joshua Leonard, Milan Mrksich, Michael Jewett, and Keith Tyo use the tools of many disciplines to build new biological systems to eradicate disease.

Left, RJ, the robotic resident of the Willens Engineering Life Sciences Wing at the Technological Institute, is programmed to interact with visitors. Robotics researchers at the McCormick School have developed new technologies for rehabilitation robotics and advanced prosthetics.





OTHER ACCOMPLISHMENTS OF NOTE: DISCOVER

Effects of behavior at the pump.

In the first real-world research into the effects of human behavior at the fuel pump on urban air pollution, a Northwestern chemist and a former Kellogg professor reported that switching from ethanol to gasoline in flexible-fuel vehicles reduced ozone levels in São Paulo, Brazil, by 20 percent but increased nitric oxide and carbon monoxide concentrations. The empirical analysis by **Franz M. Geiger** of the chemistry department and **Albert Salvo**, formerly of the Kellogg School, was published in the journal *Nature Geoscience*. Although the study is valid for São Paulo only, its approach can be followed for other cities.

Upper right, a fluorescent image from researchers Thomas O'Halloran and Teresa Woodruff shows the distribution of zinc (green) and DNA (blue) in a mouse egg cell. Fertilization in mammals triggers the release of zinc sparks. The amount of zinc might identify a high-quality fertilized egg, reducing the number of embryos that need to be transferred during fertility treatments.

developing neural prosthetics to help restore arm use. Feinberg investigators have developed the first animal model for ALS dementia, allowing microscopic-level views of the brain and monitoring of test drugs.

Other recent advances in biomedical research at Northwestern include new and unprecedented quantitative information on zinc fluctuations that play a central role in ensuring a healthy egg-to-embryo transition during in vitro fertilization. The discovery of a novel cause of glaucoma is leading to the development of eye drops that could cure the disease. Northwestern scientists have also discovered a potential drug therapy targeting a genetic mutation in children with a rare, incurable pediatric brain tumor. Further advances in anticancer approaches are expected as a result of Northwestern's \$10 million investment in its new Developmental Therapeutics Institute.

Recent major contributions to fund new centers and programs promise further advances. The Les Turner ALS Research and Patient Center, created by a \$10 million commitment from the Les Turner ALS Foundation, is accelerating the rate of translational research benefiting the global ALS community by increasing collaboration among Northwestern's ALS research, clinical, and educational activities. The Osher Center for Integrative Medicine, renamed following a multi-million-dollar gift from Bernard Osher, is collaborating with the four other Osher Centers for Integrative Medicine (at UCSF, Harvard, Vanderbilt, and Sweden's Karolinska Institute), all emphasizing the body's innate healing ability and a holistic approach to health. The Walter S. and Lucienne Driskill Graduate Training Program in Life Sciences, endowed by a \$10 million gift from the Walter S. and Lucienne Driskill Foundation, is quickening the pace of biomedical discovery at



Left, rendering of the planned Louis A. Simpson and Kimberly K. Querrey Biomedical Research Center on the Chicago campus

Northwestern by focusing on recruitment of the most promising candidates for the medical scientist training program.

Greater future discoveries are expected with completion of the Simpson Querrey Biomedical Research Center on the Chicago campus. It is named in recognition of a \$92 million gift from alumnus Louis A. Simpson and his spouse, Kimberly K. Querrey. Connected floor-by-floor with the Robert H. Lurie Medical Research Center, the new 12-story building will double the Feinberg School's research enterprise, providing space for investigators in cancer, heart disease, neurodegenerative disorders, diabetes, and other crucial areas. In recruiting top medical researchers for the new facility, Feinberg expects to attract \$150 million a year in new biomedical research funding.

Positioned to Lead in Nanomedicine

With its pioneering strengths in nanotechnology—the manipulation of matter at the atomic and molecular scale—Northwestern is superbly positioned to make advances in applying nanotechnology to medicine. The medical field is an area in which nanotechnology is expected to have a profound impact on and benefit to society. The recent establishment of centers for nanomedicine research strengthens the University's global leadership position in the field while providing fertile environments for discoveries in the diagnosis and treatment of diseases.



Grants to design energy breakthroughs. Northwestern's Center for Bio-Inspired Energy Science (CBES) and the Argonne-Northwestern Solar Energy Research (ANSER) Center have received multimillion-dollar four-year grants from the US Department of Energy for projects designed to accelerate scientific breakthroughs for building an energy economy. CBES will use its \$12 million grant to develop bioinspired artificial materials to change how energy is converted and used. ANSER will use its \$15.2 million funding to increase understanding of the molecules, materials, and physical phenomena necessary to create more efficient technologies for solar fuels and electricity production. Its partners include not only Northwestern and Argonne (pictured above) but also the University of Chicago and Yale University.



Affecting NIH research policy. Teresa Woodruff (above), the director of the Women's Health Research Institute at Northwestern Medicine, was a driving force behind the new National Institutes of Health policy to include females in preclinical research. Applicants for NIH funding must now address the influence of sex in the design and analysis of biomedical research with animals and cells. Woodruff advocated for sex inclusion in all levels of research on CBS's *60 Minutes*, in journal articles, and in congressional testimony.

Upper right, Sam Stupp, founding director of the Simpson Querrey Institute for BioNanotechnology, works with PhD student Julia Ortony.



The Simpson Querrey Institute for BioNanotechnology, endowed in 2014 to expand the research of the previously established Simpson Querrey Center for Regenerative Nanomedicine, focuses on applying nanotechnology to repairing, replacing, and regenerating tissues and organs. It brings together clinicians, scientists, and engineers from across Northwestern. A recent example of its research is the development of an antioxidant biodegradable biomaterial that is more compatible with the body's cells and tissues than the currently used plastics, reducing inflammatory reactions to implants and medical devices.

In a major international collaboration announced in 2014, Northwestern's International Institute for Nanotechnology (IIN) and Singapore's Nanyang Technological University have joined forces to establish the NTU-Northwestern Institute for Nanomedicine. Combining Northwestern's expertise in bio-detection and nanotherapeutics with NTU's expertise in drug-delivery systems and biomaterials engineering, the multimillion-dollar research institute focuses on projects in disease diagnostics, timed-release therapeutics, targeted drug-delivery methods to increase the efficacy of existing drugs, and new treatment methodologies. Among the groundbreaking discoveries of Northwestern IIN researchers are a system that detects viruses and bacteria with greater sensitivity than ever before; a drug-delivery system that allows physicians to successfully combat inflammation after open-heart surgery; and lotions capable of penetrating deep into the skin and turning off disease-causing genes.

The Ronald and JoAnne Willens Center for Nano Oncology, recently established with IIN through a \$10 million gift from Ronald and JoAnne



Willens, is one of only a few of its kind to focus on currently untreatable cancers, including glioblastoma (brain cancer), pancreatic cancer, melanoma, lymphoma, and late-stage breast and prostate cancers. The gift enables the University to accelerate its promising research applying nanotechnology to these and other cancers. Recent Northwestern advances in this area include the discovery of a nanoparticle to kill lymphoma cells without chemotherapy and the development of NanoFlares, a simple but powerful tool that can detect live cancer cells in the bloodstream, potentially long before the cells can settle and form a dangerous tumor.

Above, a lab in the Willens Engineering Life Sciences Wing in the Technological Institute. The facility houses chemists and engineers whose research advances biomedicine in areas such as neural engineering, bionanotechnology, and biomaterials.

Left, Chad Mirkin heads Northwestern's International Institute for Nanotechnology. The new Ronald and JoAnne Willens Center for Nano Oncology has been established within the institute, which also has entered into a nanomedicine collaboration with Singapore's Nanyang Technological University.





INTEGRATE

Fostering an Entrepreneurial Culture

In the few years since the strategic plan spoke of “creating a foundation for an entrepreneurial culture at Northwestern,” the University’s entrepreneurial culture has progressed well beyond the foundational stage. And it’s not just faculty who are launching startups. The University’s growing entrepreneurial environment in recent years has inspired students to conceive of scores of startups. Many have won national and regional competitions and become viable businesses.

Courses and academic programs, centers and institutes, and student groups make up, in the words of the Farley Center for Entrepreneurship and Innovation, “a dynamic ecosystem of entrepreneurship and innovation activities at Northwestern.” The dynamic acceleration in interest in the center’s NUvention courses underscores students’ growing thirst for learning how to take an idea and develop it into something real. Just a few years ago there were three courses in the interdisciplinary program, and now there are six—energy, web and media, medicine, social impact, nanotechnology, and the arts—drawing 300 students a year.



Each NUvention course covers the process of building a product and a company. Students from across the University work together in teams to form real businesses, generate ideas for real products, present them to real venture capitalists, and compete for real funding dollars. A NUvention: Energy course produced the first-place winner in the Illinois Clean Energy Student Challenge 2014; MeterGenius’s innovative software platform allows residential consumers to view their electricity consumption data, set an energy budget, and earn rewards for saving energy.

Whether they hatch a startup idea in a NUvention course or any of the other breeding grounds at Northwestern, today’s student entrepreneurs rarely go it alone. The teams they form are often drawn from the multiple backgrounds required in a successful business. The team Innoblative represents four schools: the Kellogg School of Management, the McCormick School of Engineering and Applied Science, the School of Law, and the Feinberg School of Medicine. It took first place at the prestigious national Biomedical Engineering Innovations, Design, and Entrepreneurship Awards in 2014 for a device that would reduce treatment time and cost while increasing safety for breast cancer surgery patients.

To encourage interaction among entrepreneurs even more, an incubator called the Garage will soon open on the Evanston campus, providing an environment for students from throughout the University to interact and help one another turn innovative ideas into startup companies. The 11,000-square-foot space has movable walls so it can be configured to meet different needs. The Garage was inspired in part by the success of 1871, the tech incubator headed by Northwestern alumnus Howard Tullman in Chicago’s Merchandise Mart where entrepreneurs learn from and encourage each other.

Northwestern has gone well beyond the days of teaching entrepreneurship in the classroom. Today’s students experience the entire innovation/

OTHER ACCOMPLISHMENTS OF NOTE: INTEGRATE

Teaching coding is critical. With computer programming now a crucial skill in academia, industry, and government, two weeklong sessions of Data Science Initiative: Programming Boot Camp have been offered on the basic skills to write code to collect and process digital data and to analyze it. A session was offered to graduate and professional students and post-doctoral fellows from across the University in fall 2014, and another to undergraduates during spring break 2015.

Above, in startup competitions, the team Innoblative (left) was a winner for a breast cancer surgery innovation and MeterGenius (right) for software that promotes energy saving.



Mental healthcare investigation.

Fellows selected for the second round of the Social Justice News Nexus, an innovative social justice reporting program of the Medill School of Journalism, Media, Integrated Marketing Communications, will probe into mental healthcare issues in Chicago. The 16 fellows, who include Medill graduate students and outside professionals, will investigate the city's public mental health clinics, the mental healthcare crisis in the Cook County Jail, the link between mental illness and violence, and the lack of mental healthcare on the city's South and West Sides. Their work will ultimately be published by a Chicago-area media outlet. In the photo, mental health advocates protest the lack of care in the poorest Chicago neighborhoods.

business life cycle—from ideation to prototyping and business plan development to commercialization. For a number of Northwestern alumni, successful startups they launched during college are still going strong. Yet-to-come student entrepreneurs will undoubtedly follow in their footsteps as the entrepreneurial culture on campus continues to blossom.

Ensuring a Consistent Undergraduate Experience

In every arena, not just entrepreneurship, Northwestern works to provide all students with the resources to succeed. Financial aid is just the beginning. The University strives to ensure that every student not only succeeds academically but also is able to participate fully in the co- and extracurricular activities that are part of the undergraduate experience.

As efforts to diversify Northwestern's student population have expanded, the University is working to better coordinate support services and to identify needed new services. Last fall the Center for Student Enrichment Services opened, in part to serve as the hub for low-income and first-generation college students—now one in eight students—to access campus resources. The center is housed in another relatively new unit, the Department of Campus Inclusion and Community, which arranges dialogues and leadership, cultural competency, and social justice training.

Right, Dance Marathon attracts a broader range of participants since Associated Student Government voted in 2013 to subsidize the registration fee for low-income students.





Many activities aim to ensure students' academic success. Summer programs in engineering, biological sciences, chemistry, mathematics, and writing give incoming first-year students a boost academically and personally. Programs in which students are tutored and mentored by their peers include the Academic Mentoring Program and the recently established Peer-Led Undergraduate Study Program and Undergraduate Program for Advancing Learning. Sciences, engineering, and mathematics workshops benefit students interested in those areas.

“Ensuring a consistent undergraduate experience”—the title of a discussion held for relevant University areas in January—sums up the goal of all these efforts.



Supercharged for success.

AMPY, a device developed by materials science and engineering PhD students **Michael Geier**, **Tejas Shastry**, and **Alex Smith**, had won \$100,000 in startup competitions by late 2014, topped that amount in Kickstarter contributions in less than 72 hours, and has been featured in several media outlets. The small, handheld AMPY captures kinetic energy as a person moves and converts it into an electronic charge for a phone or any device with a USB port. A 30-minute run, for example, can give a smartphone a 3-hour charge or a smartwatch a 24-hour charge.



CONNECT

Chicago and Northwestern: A Mutually Beneficial Relationship

Northwestern's location next door to Chicago, ranked seventh on the 2014 Global Cities Index, is central to the strategic plan. Proximity to Chicago's global corporations, national laboratories, cultural institutions, and other universities gives Northwestern a competitive advantage in recruiting and offering opportunities to faculty and students, and in turn the University's presence benefits the city. Its strengths reinforce many of Chicago's areas of focus, such as fostering innovation and entrepreneurship in technology and the life sciences, growing the clean-energy industry, improving infrastructure, attracting businesses and headquarters, and becoming a global cultural destination.

An inventory of Northwestern partnerships found that interest in connections with the city is high throughout the University—and growing. Northwestern partners with more than 600 Chicago-area organizations in programs focused on education, professional development, arts and culture, and civic engagement.



The announcement last fall that theater professor Anna Shapiro would be the new artistic director of the acclaimed Steppenwolf Theatre, succeeding Northwestern alumna Martha Lavey, made news across the country. In one way or another, the University contributes to the pre-eminence of almost every major cultural institution in the city. Faculty, students, and alumni have founded leading theater ensembles; perform with the Chicago Symphony Orchestra, Lyric Opera of Chicago, and theater companies ranging from nationally acclaimed organizations to renowned improv groups; write, direct, and choreograph productions and design costumes and sets; are leaders in Chicago’s literary community; and make countless other contributions to the city’s cultural life. The University sees huge opportunities to contribute further, especially through its strategic emphases on writing and the visual arts, as Chicago expands its efforts to become a global tourism destination.

Technology was the focus of another nationwide news story in 2014: A Chicago-based research consortium including Northwestern faculty was



OTHER ACCOMPLISHMENTS OF NOTE: CONNECT

MOOC for alumni and friends.

Northwestern alumni and friends were offered an exclusive massive open online course (MOOC), Content Strategy for Professionals, in summer 2014. Alumni and friends across the globe learned how to improve their understanding of audiences and strategies for reaching them. The first content-strategy MOOC at Northwestern the previous winter drew interest from nearly 22,000 professionals in 141 countries.

Above left, Amanda Majeski (in *The Passenger* at Lyric Opera of Chicago) has piled up critical acclaim since her 2006 graduation from the Bienen School of Music.

Above right, theater professor Anna Shapiro will succeed Northwestern alumna Martha Lavey as artistic director of the Steppenwolf Theatre Company.

Left, Francesca Casadio is codirector of NU-ACCESS, a Northwestern–Art Institute of Chicago collaboration to conduct high-tech investigations of art and cultural heritage objects. Casadio is pictured at the Guggenheim Museum in New York.



Better first impression. Northwestern's new Segal Visitors Center welcomes prospective students and their families with comfortable waiting areas, a large auditorium, meeting rooms, and expansive views of Lake Michigan and the new Sailing Center. Designed by Chicago architectural firm Perkins+Will, the building is the home of Undergraduate Admission. Its location at 1841 Sheridan Road allows tours to start on the main part of the Evanston campus. In other construction news, architects have been selected for the Norris University Center revamp and for the first residence hall to be constructed on the Evanston campus since 2002.

awarded a \$70 million federal grant to create the Digital Manufacturing and Design Innovation Institute, which will position Chicago as a national hub for digital manufacturing and give researchers opportunities to produce cutting-edge innovations. The University was already part of Chicago's technology vanguard. Among Illinois universities between 2010 and 2013, Northwestern claimed the largest share of active startups, 33 percent; faculty startups span the biomedical, nanotechnology, energy, and advanced materials fields. Students are also heavily involved in entrepreneurial activity, connecting with Chicago incubators, investors, and mentors to launch high-profile technology, healthcare, and social-impact startups, among others.

Another major area of University contribution to the city is its efforts to boost the academic success of Chicago Public Schools students. Northwestern partners with more than 120 Chicago public schools (as well as other area K–12 schools) on programs to improve college preparedness and access, advance STEM (science, technology, engineering, and math) education, develop teacher and administrator leadership, and research student outcomes. The CPS Principal Fellowship Program, a three-year partnership between CPS, the Kellogg School's Center for Nonprofit Management, and the School of Education and Social Policy, provides a year of leadership training and executive coaching for high-performing CPS principals. The Northwestern Academy, a School of Education and Social Policy program announced in 2013, helps low-income CPS high school students prepare for and gain admittance to selective colleges and universities. Every year 50 CPS ninth-graders

Right, Chicago Public Schools students participating in Northwestern's Science Club visit the University's Clinical Simulation Lab to learn medical skills and explore healthcare careers. The club is an NIH-funded educational research project of the Science in Society office.





who demonstrate academic aptitude but are not enrolled in CPS selective-enrollment schools are invited to apply to the academy. Countless other programs are open to the Chicago Public Schools system, including scholarship and college-prep programs.

In some collaborations, the pairings are surprisingly atypical. NU-ACCESS (Northwestern University/Art Institute of Chicago Center for Scientific Studies in the Arts) is an innovative collaboration between scientists and engineers and museum professionals. Northwestern researchers conduct high-tech investigations of art and cultural heritage objects to determine artistic techniques, materials, and innovations in processes—knowledge that, among other things, helps devise conservation treatments. Established in 2013 with a grant from the Andrew W. Mellon Foundation, NU-ACCESS grew out of an existing partnership between Northwestern and the Art Institute and, through the Mellon support, is now a national model of interdisciplinary scientific research in the arts, offering its scientific tools and expertise to users from across the country.

Northwestern student demand for Chicago-based experiences grows every year, and the University makes it a priority to meet the demand. Chicago institutions and businesses give students numerous opportunities for experience in their chosen fields; among recent examples, engineering students work with the Shedd Aquarium to design a better anesthesia-delivery system for fish, and, through another Mellon Foundation grant, art history doctoral students receive direct access to Art Institute curatorial staff and collections for research. New students experienced Chicago right away at the “Purple Pride!” event in downtown Chicago’s Millennium Park during Wildcat Welcome 2013 and 2014, and undergraduates enjoy free admission to the Art Institute. The University offers courses in collaboration with Chicago institutions, volunteer and profession-related pro-bono opportunities, internships, and organized



Arts adventure for high schoolers.

Northwestern selected a dozen high school students from across the globe for a two-week adventure with intriguing people and spaces in Chicago’s art world in summer 2014. Students participating in the new art-focused college preparation seminar visited key players at the EXPO CHICAGO contemporary art fair, the Art Institute of Chicago (pictured), Christie’s, artists’ studios, and private collections, among others, and studied the life cycle of works of art from the studio through sale and distribution.

Above left, the first Humanities Plunge included a botanical drawing class at the Chicago Botanic Garden.

Above right, Kristen Perkins of the Office of STEM Education Partnerships brainstorms with Evanston Township High School students about opportunities in STEM fields.



For Feinberg's future. Alumnus **Earl Beard** and his late wife, **Lovie**, responded to a main goal of the Feinberg School of Medicine—providing full tuition support for all students—with a commitment from their estate. The school aims to create an endowment that ultimately will provide full scholarships for all Northwestern medical students, enabling recruitment of gifted candidates regardless of ability to pay.

excursions and events. The new Humanities Plunge offers a spring-break immersion in the cultural riches of Chicago; 27 students in the five-day for-credit course took advantage of theater, dance, architectural walks, museum visits, and culinary adventures in March 2015.

Many other examples of city-gown partnerships could be cited, but the bottom line is this: Chicago and Northwestern are mutually beneficial. As connections continue to grow, experiential learning, research, and other opportunities for students and faculty will be enhanced; Chicago's industrial growth and the health and education of its citizens as well as its cultural fabric will be strengthened; and the global profile of both city and University will be elevated.

Above, the Northwestern Academy helps low-income Chicago Public Schools students prepare for and gain admittance to selective colleges and universities.

Right, Wildcat Welcome 2013 and 2014 included "Purple Pride!" events at Chicago's Millennium Park.





ENGAGE

Maintaining Northwestern's Global Leadership

Northwestern's goal of expanding its global impact—one of the four pillars of the strategic plan—received a huge boost in early 2015 when alumna Roberta Buffett Elliott made the largest single gift in the University's history, more than \$100 million, to establish the Roberta Buffett Institute for Global Studies. The institute promises to transform every aspect of the University's global programming and ensure Northwestern's position as a global leader.

Because Mrs. Elliott funded the entire gift immediately, the University can begin recruiting the first leader of the Buffett Institute and implementing a broad array of initiatives. The gift will fund new interdisciplinary professorships, research, international-student scholarships, a visiting scholars program, travel grants for students, and graduate and postdoctoral fellowships.

The new institute will build on the work of the Buffett Center for International and Comparative Studies, which Mrs. Elliott previously endowed. The center supports 33 research centers, programs, groups, and projects across the University and has 218 faculty affiliates from every



Left, Roberta Buffett Elliott is joined by her husband, David (right); her brother, Warren Buffett; and President Schapiro at the announcement of her gift for global studies.

Below left, Northwestern undergraduates participate in a group research project on the prevalence of anemia in rural India.

school. Mrs. Elliott's new gift heightens the significant advances Northwestern has already made with its multidisciplinary, problem-solving approach to global issues.

Nowhere is that approach more apparent than in the University's activities in global health, which the strategic plan identified as Northwestern's fastest-growing area of study. Multiple Northwestern schools are offering global health academic programs or supporting global health centers. The School of Professional Studies partners with the Feinberg School of Medicine to offer the new online master of science degree in global health; students learn how to improve healthcare outcomes and systems, work effectively in challenging healthcare settings, navigate global regulatory issues, and evaluate results. For undergraduates, the global health

OTHER ACCOMPLISHMENTS OF NOTE: ENGAGE

Media in the Middle East. The Qatar National Research Program has awarded Northwestern University in Qatar grants for two projects. "Media Use in the Arab Gulf: A Longitudinal Study" received nearly \$850,000, and "Content Innovation Strategies for Mobile Media in Qatar" more than \$700,000.





Stronger ties with Tel Aviv.

University leaders strengthened Northwestern's ties with Tel Aviv University during a spring 2014 trip to Israel. The University's partnerships with TAU now include executive management, law, and undergraduate and medical student exchange programs, and further cooperation is planned. Pictured above are students from two international programs in Israel in spring quarter 2014.

Above, Elizabeth Larsen (in photo at right) won a grant to travel to eight countries to research programs to eliminate malnutrition. These photos are from her time in Uganda (left) and Guatemala (right).

studies minor in Weinberg College of Arts and Sciences is designed for a variety of backgrounds and augments coursework from many disciplines with international experiences. One of the University's largest minors, the program emphasizes the cultural and economic development issues that must be taken into account to understand a foreign country.

The annual Intramural Global Health Case Competition welcomes undergraduate and graduate students across all schools to form teams to develop solutions for real-world problems. In the first competition in 2014, the challenge was to design an intervention to end malnutrition in Uganda. Undergraduates interested in global health and studying abroad can engage in comparative study of obesity and nutrition in Mexico City and Chicago through a collaboration between Northwestern and Universidad Panamericana. That program is funded by a grant from one of President Obama's signature education initiatives, 100,000 Strong in the Americas, which recently awarded the University a second grant for its study abroad in Cuba program. Competitions off campus also attract students with global projects. Elizabeth Larsen, a student in the Honors Program in Medical Education, won a 2014 award from the Circumnavigators Club Chicago Chapter to travel to eight countries to research programs to eliminate malnutrition.

Centers at the Kellogg School of Management, the McCormick School of Engineering and Applied Science, and the Feinberg School of Medicine work with business and nonprofit partners to develop and implement feasible healthcare solutions for underserved communities throughout the world. Through a National Institutes of Health grant,



Left, members of the Northwestern Access to Health Project—from left, Juliet Sorensen (clinical associate professor of law), Uttara Dukkipati (JD-MBA '15), Ariel Moser (MPH '15), Shannon Galvin (assistant professor of medicine), and Katie Yonover (Law '16)—help traditional cutters in Douentza, Mali, find alternative income sources in an effort to eradicate female genital mutilation.

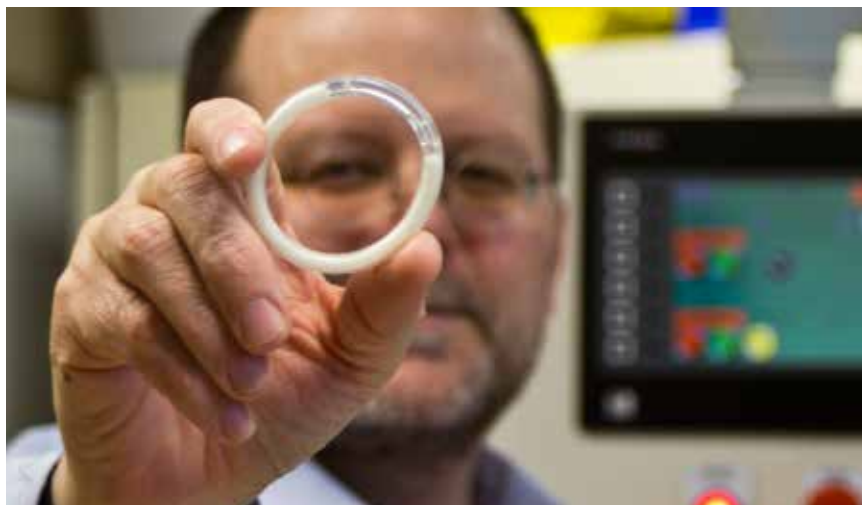
Lower left, Patrick Kiser, associate professor of biomedical engineering, shows the intravaginal ring developed to protect women from HIV.

Feinberg's Center for Global Health and McCormick's Center for Innovation in Global Health Technologies are collaborating with universities in Nigeria to develop that country's first biomedical engineering department and neurocognitive AIDS research center, where research will aim to invent, manufacture, and market anti-HIV medical devices. In the federally funded Access to Health Project, the School of Law collaborates with the Center for Global Health and Kellogg to assess public health needs in individual communities and design interventions. Seeking solutions to diseases prevalent in lower-income countries, Northwestern medical researchers recently reported the development of an intravaginal ring to protect women from HIV and of a low-cost drug for treating malaria. CGH director Robert Murphy has received a federal grant to develop low-cost, onsite tests for hepatitis C patients in sub-Saharan Africa.

As Northwestern's global health activities burgeon, global outreach is accelerating in other areas as well. With its programs in journalism and



Literary luminaries. *On Immunity: An Inoculation*, by Weinberg College creative writing instructor **Eula Biss**, was selected as one of the 10 best books of 2014 by several major publications, including the *New York Times*, the *Los Angeles Times*, *Publishers Weekly*, *The Guardian*, the *Chicago Tribune*, *Salon*, *TimeOut*, and *Chicago* magazine. The *Chicago Tribune's* top-10 list also included *Paper Lantern and Love Stories* by Northwestern Distinguished Writer in Residence **Stuart Dybek**. Also in 2014, Dybek topped *Newcity's* list of 50 Chicago literary movers and shakers. Northwestern alumnae **Gillian Flynn**, author of the bestselling novel *Gone Girl*, and **Veronica Roth**, author of the *Divergent* series, were second and third on the list, which included 14 other people with Northwestern ties.





Left, Northwestern hosted 25 scholars in the Obama administration's Young African Leaders Initiative in 2014 and will continue to be a program host during the next four summers.

Right, Northwestern's journalism and communication programs are key to the development of a media hub in Qatar.



communication, Northwestern University in Qatar is at the heart of the development of a hub of media-related industries and activities in Qatar. The Kellogg School has added Peking University's Guanhua School of Management to its roster of international partners for the executive MBA program. The School of Law is helping Hamad bin Khalifa University in Qatar open the Middle East's first graduate-level law school. The Program of African Studies, working with the Farley Center for Entrepreneurship and Innovation, in 2014 hosted the first of its five annual summer programs for 25 scholars in the Obama administration's Young African Leaders Initiative. Weinberg College continues to add new area-studies majors and minors, with Asian languages and cultures and Middle East and North African studies the two most recent. An increasing number of undergraduates study abroad, and many Northwestern faculty teach a term or more abroad and welcome international counterparts here as visiting scholars.

At the ceremony announcing Roberta Buffett Elliott's gift, a panel that was assembled to discuss the gift's impact represented scholars from many disciplines, symbolizing globalization's reach into every corner of the University. As President Schapiro commented at that ceremony, Northwestern now has the resources in place to "take the scope and impact of our global programs to a whole new level."



The transformation of Northwestern as guided by the University's strategic plan is a work in progress. This report focuses on recent initiatives in each of the four pillars that the plan identified as Northwestern's particular strengths. Many other initiatives are happening across the University. These advancements would not be possible without the support of our dedicated faculty, staff, students, and alumni. The administration and trustees are grateful for your role in bringing Northwestern into even greater national and international prominence.

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