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For nearly 150 years, the University of Illinois has been an engine for change.

Our world-class academic programs literally transform the lives of students. Our campuses also lift society as a whole, producing the highly skilled graduates and research discovery that help drive progress and economic growth.

This year, change comes to the university itself with a transition to a new president – only the 20th since our founding as one of the nation’s original land-grant universities. It will bring new vision and new opportunities to build on our rich legacy of excellence.

The foundation is rock solid and rooted in core missions that seek to serve not only our students, but our state and nation. Our educational and research programs extend beyond the university’s three main campuses to touch nearly every corner of Illinois. We are the state’s largest educator, with more than 78,000 students and awarding more than 20,000 degrees annually. Our best-in-class faculty attract the brightest students from around the world, along with nearly $1 billion in funding for groundbreaking research.

This report provides a look at just a few of the many initiatives that reflect the university’s impact and its place as a world leader in education and innovation.

We hope you enjoy it and thank you for your interest in the University of Illinois.

Welcome

Robert A. Easter
President
July 2012–May 2015

Timothy L. Killeen
President-designate
May 2015
Appointed by the governor, members of the University of Illinois Board of Trustees are responsible to the people of Illinois for the proper distribution of funds appropriated by the General Assembly and for the proper administration and governance of the University. The trustees are the final authority of the University.

Trustees serve on a voluntary, non-remunerated basis. They oversee all aspects of the University. In addition to focusing on appropriate governance, trustees advocate for programs and initiatives that support diversity and sustainability on all three campuses.

Trustees meet every two months and hold positions on various committees including the executive committee; academic and student affairs; audit, finance and facilities; governance, personnel and ethics; and hospital. The board’s three-member executive committee meets to transact urgent business. Trustees also serve on several external boards, including those of the U of I Alumni Association and U of I Foundation; the Illinois Research Park; and IllinoisVENTURES, LLC.

Three student trustees, one from each campus, are elected by the student body to one year terms; one has a binding vote and two have advisory votes.
EXECUTIVE OFFICERS

Robert A. Easter, PhD, President (retires May 17, 2015)
Timothy L. Killeen, PhD, President (assumes office May 18, 2015)
Michael D. Amiridis, PhD, Chancellor/Vice President, U of I at Chicago
Susan J. Koch, PhD, Chancellor/Vice President, U of I at Springfield
Phyllis M. Wise, PhD, Chancellor/Vice President, U of I at Urbana-Champaign
Jerry L. Bauman, PharmD, Interim Vice President for Health Affairs
Thomas R. Bearrows, JD, University Counsel
Thomas P. Hardy, MS, Executive Director for University Relations
Susan M. Kies, EdD, Secretary of the University
Walter K. Knorr, BA, Chief Financial Officer and Vice President
Christophe Pierre, PhD, Vice President for Academic Affairs
Lawrence B. Schook, PhD, Vice President for Research

Officers of University-related Organizations

Edward F. Ewald, BA, Interim President, University of Illinois Foundation
Loren R. Taylor, MA, President, University of Illinois Alumni Association

University of Illinois Alumni Association

www.uiaa.org

Alumni are a permanent part of the University of Illinois family, and their support of the University of Illinois and the University of Illinois Alumni Association programs, services, and events fosters participation and pride in the institution. The universal membership model expands the reach of the organization and its members. Currently the University has almost 679,000 living alumni.

University of Illinois Foundation

www.uif.uillinois.edu

The University of Illinois Foundation is the official fund raising and private gift-receiving arm of the University of Illinois and the three campuses. UIF staff work with alumni, friends, faculty, corporations, and campus development staff to promote opportunities that benefit the University. The foundation raised $2.43 billion during the recent Brilliant Futures campaign. Access Illinois: The Presidential Scholarship Initiative is a three-year, $100 million fundraising campaign designed to help ensure that the campuses continue to attract and retain the best and brightest students, regardless of their financial need.

University Administration

The president and senior staff work together to develop strategies and solutions to address educational and administrative challenges across University of Illinois campuses.

University administration (UA) offices and units provide centralized administrative services that are vital to supporting the primary missions of the institution: instruction, research, public service, and economic development.

UA staff are responsible for communicating the variety and excellence of research and other academic endeavors occurring at the University of Illinois to government, corporate, and civic leaders as well as to alumni and other stakeholders.

University Administration services and functions

- Academic affairs
- Business and financial services
- Ethics and compliance
- Facilities planning
- Government relations
- Health affairs
- Human resources
- Information technology and systems
- Planning, administration, and auditing
- Research
- Technology and economic development
- University counsel
- University relations
Supporting college dreams

A college education is the foundation of the American dream, a pathway to a life of opportunity and success.

The faculty and staff at the University of Illinois take pride in transforming lives and educating the next generation of American and global leaders.

In 2012-13, the latest year for which numbers are available, the University provided $1.37 billion in financial aid to more than 61,500 students – 78 percent of total enrollment. The aid comes from many sources including scholarships, grants, fellowships, and tuition and fee waivers, which account for 47.5 percent of the total. The remainder is from employment and loans.

University-wide programs, such as the President’s Award Program, support qualified low-income and underrepresented students from across the state. These awards, with a maximum award of $10,000, are renewable scholarships that assist 3,850 students across the three U of I campuses. Scholarship programs on each campus are another source of support.

Over the last decade, the University has increased funding for need-based financial aid more than fourfold to over $78 million.

Keeping college affordable

In 2011, the Board of Trustees adopted an inflation-neutral tuition policy that holds growth in tuition to the cost of living or below. The policy assumes no significant reductions in state funding or in other University support. In January 2015, the Board did not increase base tuition for in-state freshmen next fall, holding year-to-year rates steady for the first time in more than 20 years.

Combined with the state of Illinois guaranteed-tuition law, the inflation-neutral policy helps students and their parents by locking in tuition rates for the four years required to complete most undergraduate degree programs.

Summer 2014 participants in the UIC College of Engineering Guaranteed Paid Internship Program (see page 9).
ONLINE ACCESS, ONLINE SUCCESS

National Center for Education Statistics data show that more than a half million students are enrolled in online programs at four-year public higher education institutions. Some of those 574,000 students were enrolled in programs offered by the University of Illinois. Each campus was highly ranked in U.S. News & World Report’s 2015 Best Online Programs Rankings released in January 2015.

UIS – with 1,700 online students across the U.S. and abroad – received a top 20 ranking for all undergraduate degree programs and a ranking of 17 for the online management information systems graduate business program. The campus offers eight undergraduate and 11 graduate degree programs. UIS offers over 400 high quality online courses for students across the nation and around the world each semester.

UIC tied for second in overall online programs. Two of UIC’s online programs – in nursing and health information management – are second in the nation.

More than 30 students are enrolled in the online health information management program in 2015. Health information management professionals are responsible for keeping patient data secure, including laboratory test reports, insurance information, and medications. Students who graduate from the UIC program may take the Registered Health Information Administrator (RHIA) national certification examination.

“Our online program provides a viable option for those students who, due to work or personal life requirements, are unable to attend a traditional campus program,” says Karen Patena, clinical associate professor of health information management and program director. Students are taught by the same faculty who teach on campus.

Urbana campus programs were also highly ranked for online bachelor’s, graduate education, and graduate engineering programs.

Cris Mayo, director of online learning for the College of Education, believes its U.S. News ranking reflects the attention the college has given to developing quality programs, academic student services and advising, instructional design and online instructional training, and IT support.

The magazine looked at best practices and factors for more than 200 online programs including student engagement, faculty credentials and training, peer reputation, and student services and technology in determining the rankings.

UIS Center for Online Learning, Research, and Service

Over more than a decade, UIS has been at the forefront of institutions engaged in online learning and the uses of technology in instruction. The campus has won numerous awards in recognitions of its leadership in online education.

In 1998, UIS Online enrolled 30 students in two classes. By 2007, nearly 4,000 students were enrolled in 220 classes.

UIS faculty members’ responsiveness to adopting the Internet and other technologies for instruction has been followed quickly by their scholarship focused on online learning and emerging educational technologies.

UIS built on this record of accomplishment by establishing the Center for Online Learning, Research, and Service (COLRS). The Center is UIS’s hub for the study and application of online learning pedagogy, technology, and best practices.

The Center:

• Provides support for both original scholarly research and the dissemination of results.
• Builds synergies between discovery research and the enhancement of current online education practices.
• Informs, empowers, assists, and supports the faculty of UIS in the delivery of courses, degrees, and certificate programs through the Internet.
• Reaches out around the globe to build exciting new online collaborations among educational institutions, government agencies, and businesses.
Established in 1867, the University of Illinois at Urbana-Champaign is a world leader in research, teaching, and public engagement. Illinois has tremendous breadth and depth in academics, with more than 150 undergraduate and more than 100 graduate and professional programs. A preeminent faculty propels many academic programs to be ranked among the best in the world. This emphasis on campus-wide academic excellence has built Illinois’ reputation as one of the nation’s premier public universities.

Total enrollment (Fall 2014) ............ 45,140
Degrees awarded (2013–2014) ............ 12,204
Operating budget (2014–2015) ........... $2.04 billion

The University of Illinois at Chicago is the city’s largest university and a research institution of growing national and international prominence. With the nation’s largest college of medicine and colleges of dentistry, pharmacy, public health, nursing, social work and applied health sciences, UIC is the state’s principal educator of health professionals. UIC faculty, students, and staff work with neighborhood, foundation and government partners on a wide range of projects to improve the quality of life in metropolitan areas around the world.

Total enrollment (Fall 2014) ............ 27,969
Degrees awarded (2013-2014) ............ 7,069
Operating budget (2014-2015) ........... $2.10 billion

Agricultural, Consumer and Environmental Sciences
Applied Health Sciences
Institute of Aviation
Business
Education
Engineering
Fine and Applied Arts
Graduate College
School of Labor and Employment Relations
Law
Liberal Arts and Sciences
Graduate School of Library and Information Science
Media
School of Social Work
Veterinary Medicine
The University of Illinois at Springfield, located in the state capital, emphasizes a strong liberal arts core, engagement in public affairs, and community outreach. The campus has more than 40 degree-granting programs and is a recognized leader in online education. UIS pairs academic excellence with small class size and substantial student-faculty interaction. With high-quality programs and internships in public affairs, journalism, and government, UIS offers a unique educational experience.

Total enrollment (Fall 2014) .............. 5,431
Degrees awarded (2013-2014) ............ 1,249
Operating budget (2014-2015) ........... $88.8 million

Applied Health Sciences
Architecture, Design, and the Arts
Business Administration
Dentistry
Education
Engineering
Graduate College
Honors College
Liberal Arts and Sciences
Medicine
Nursing
Pharmacy
Public Health
Jane Addams College of Social Work
Urban Planning & Public Affairs
UIS becomes fifth regional campus for UIC nursing college

The demand for baccalaureate-prepared nurses has never been greater. A Bureau of Labor Statistics study shows that employment of registered nurses is expected to grow by almost 20 percent between 2012 and 2022. Among the reasons for growth: increased demand by an aging population and a greater emphasis on preventative care.

UIC has been educating nurses since the 1940s. A School of Nursing was established in 1951 and was re-designated as the College of Nursing (CON) later that decade. In the 1970s, the college expanded to include regional sites in Peoria, Rockford, and Urbana. A program in the Quad Cities was added in 1980.

Starting with the fall 2015 semester, UIC CON is partnering with the University of Illinois at Springfield and Memorial Health Systems to offer a BS degree program in Illinois’ capital city. Students will earn a UIC degree but attend classes for all four years on the Springfield campus.

The program to be offered in Springfield has two phases: freshmen and sophomores take pre-nursing and general education courses at UIS. During the second phase, juniors and seniors complete professional nursing courses taught by UIC nursing faculty on the UIS campus. Admission to the professional phase of the BSN program requires successful completion of the first phase, followed by a recommendation of the college’s admissions committee.

Graduate UIC nursing programs will also be available at the UIS campus starting in the fall 2015.

Dean Terri Weaver expects the partnership to produce academically strong, critical-thinking nurses, practitioners, and midwives who will meet the health care needs of the people of central and southern Illinois.

The collaboration is a win for both campuses – expanding the reach of the nationally ranked UIC college and boosting enrollment at UIS – and the Springfield community, which has a growing medical district.

SODA for real-world solutions

The Socio-technical Data Analytics (SODA) specialization in Urbana’s Graduate School of Library and Information Science (GSLIS) is making sure students have the skills necessary to thrive in the messiness that surrounds working with real data.

Students in the SODA specialization are producing a portfolio of projects that showcase how data analysis can contribute to solving real-world problems. Over the last two years, student projects have analyzed medical, linguistic, environmental, and social science data.

By the time the students are ready to graduate, they have first-hand experience with the challenges involved in reusing data, typically from multiple sources. Students in the program form substantial relationships with data holders outside of GSLIS, and the skills that students acquire with their projects help them stand out as job applicants in private industry and academia.

“SODA’s aim is to prepare this generation of librarians and information scientists with tools and methods to tackle the large wave of data dissemination needs in every part of our everyday lives,” says Associate Professor Catherine Blake, who oversees the SODA program. “In contrast to traditional approaches where data collection is designed specifically to address a research question or business need, much of the potential in big data..."
The University of Illinois is known for academic excellence, with award-winning teachers and scores of undergraduate and graduate programs that are consistently ranked among the best in the world.

comes from reusing data that was collected for a very different purpose. This means that you have to spend time understanding how the data were created and then create tailored preprocessing, transformations, and resampling approaches to ensure that you have taken the data creation process into account when you do the analysis.”

Students begin their exploration during the Evidence-based Discovery course and refine it during the Introduction to Socio-technical Data Analytics course. At the end of the program, students complete a deeper analysis through an internship, practicum, or thesis, bringing together what they have learned.

The development of the SODA program was made possible in part by a grant from the Institute of Museum and Library Services.

The University of Illinois is known for academic excellence, with award-winning teachers and scores of undergraduate and graduate programs that are consistently ranked among the best in the world.

Internship program jump starts careers

First-year UIC engineering students are encouraged to participate in the Guaranteed Paid Internship Program (GPIP) that gives them experiences that connect them to the professional world and are expected to contribute to post-graduation success.

“Our goal,” says College of Engineering Dean Pete Nelson, “is for every graduating senior to have had two internships because we have close to a 100 percent placement rate for these students.”

The new, post-freshman year internship places students in a company or a UIC research lab for at least eight weeks. Eligibility depends on meeting minimum GPA requirements, completing required courses, and participation in the freshman Engineering Success Program. Among the participating companies during the first year: Exelon Corporation, Knowles Electronics, Littelfuse, Primera Engineering, and The Burke Group as well as Argonne National Laboratory. Multiple UIC labs employed students on research projects.

Florian Richter (left), now a sophomore in electrical engineering, worked at Knowles Electronics in suburban Itasca, Illinois, during the 2014 summer. He credits his experience there in the application-specific integrated circuits group with landing him a six-month co-op position with Apple Computer in California in 2015. At Apple, he’ll be part of an audio systems team, building on his audio signal processing work at Knowles.

Richter says he wants to be a hands-on engineer after graduation. “Someday I want to see someone on the bus using something and be able to say ‘I made that.’”

Students and employers alike give high marks to the internship program. More than 82 percent of employers and faculty researchers ranked their interns as outstanding or above average in both technical and communication skills. All the interns ranked their experiences as excellent or good, the top two response categories.

The UIC Engineering Career Center coordinates the internship program. In addition, staff sponsor career fairs, provide resume and interviewing advice, and host a career prep day where students network with graduates.
**Academics**

**Studying postharvest losses in India**

A 10-day educational trip to India over the 2014 winter break focused on flowers, peanuts, wheat, and rice. Urbana-Champaign business administration professor Udatta Palekar organized the trip with 15 undergraduate students majoring in supply chain management or agricultural and biological engineering.

During the trip, the students toured the facilities of small-scale farmers, food distributors, market vendors, restaurant managers, and storage facility operators. They visited the Koyambedu Market, one of the largest wholesale markets in Asia. In smaller villages, they saw how rice is grown, stored, and transported.

Their travels gave students a first look at significant postharvest losses. They saw rice paddy left in fields after harvest, rice lost to spillage from containers or burlap bags with holes in them, trucks with unsecured beds allowing the rice to spill out in transit, and rice ruined by rain or broken underfoot as it dried in the open air.

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**Immersive Year in Japan**

Since the Year in Japan program launched in 1975, some 600 Urbana-Champaign students have lived for a year in Kobe, Japan, and taken classes at Konan University, a school of about 10,000 students. Although the program has evolved over time, one thing is constant: students come away transformed by the experience.

Junko Onosaka, a lecturer in Japanese who has coordinated the program since 2005, says the length and design of the program allows students to gain deep insight into Japanese society.

“From an educational perspective, we think that longer is better,” she says. “Students can experience not only the bright side of Japan, but also many other different aspects of the country.”

The program was started by Urbana Professor Emeritus David Plath (anthropology and Asian studies) and the late Professor Kokichi Masuda of Konan University to improve relations between Japan and the United States. Over the years the program has grown into a consortium, adding the Universities of Arizona, Hawaii, and Pittsburgh.

The universities share administrative duties, such as a rotating resident director who assists the roughly 30 students from the consortium who participate each year. (Of that number, six to twelve are from the Urbana campus.) As part of the exchange, Illinois hosts two Japanese students from Konan University. The director also helps foster and maintain good relations with Japanese families who offer room and board through the home-stay program, which organizers consider essential to the program’s success.

During the day, students attend English-speaking classes in Japanese literature, history, religion, and other subjects specific to Japan. They take field trips and mingle with their Japanese counterparts. Students join clubs in music, martial arts, tea ceremony, flower arranging, and other cultural topics.

By the end of the year, organizers say, the students feel they learned more Japanese and that they learned even more about Japan.
Medical students broaden experiences, serve communities

In the past two decades, more than 200 students have graduated from the University of Illinois College of Medicine at Rockford’s (UICOMR) Rural Medicine Program. Each student complete a four-month preceptorship, some at one of 25 partner sites throughout Illinois and some farther afield.

Mina Tanaka worked with the Karuk Native American tribe on its reservation in northern California, serving tribal members as well as local residents, all of them underserved and lower income. In addition to working with a newly hired physician, Tanaka visited local schools to promote health care careers. She described her experience as “eye opening.”

Kendall Marszalek spent her preceptorship in her hometown of Galena at the Midwest Medical Center, which has 25 beds, an ER, and a clinic. She hopes to work in a community with fewer than 10,000 people once she graduates.

Other Rockford students travel outside the U.S. for opportunities to serve while learning.

A student exchange program between Rockford and the Princess of Naradhiwas University medical school in Narathiwat, Thailand, gives UICOMR students experience with infectious diseases including advanced TB, malaria, and HIV. Thai students travel to the U.S. for hospital visits and clinical experiences.

Another program, coordinated by clinical assistant professor and physician Nicolai Hinds, is the “Haiti Away” rotation in obstetrics and gynecology. While at Justinien University Hospital in Cap Haitien, Haiti, students Alexis Gumm and Taylor Stanton helped deliver babies, participated in C-sections, and scrubbed for major gynecological surgeries performed by a visiting team of UIC physicians including Hinds, Timothy Durkee, chair of the OB/GYN department at UICOMR, and Thomas Toussaint, clinical instructor.

The Rural Medical Education (RMED) program offers a community-based rural medicine curriculum, extensive clinical experience, a 16-week rural preceptorship, a community-oriented primary care project, and interdisciplinary medical training.
Helping Otter: Successful sarcoma surgery

Otter, a two-year-old dog, had a strange, domed skull since he was a puppy. His owners and veterinarian suspected cancer.

Initial X-rays showed that the dome was a large bone tumor. That’s when Otter was referred to the University of Illinois Veterinary Teaching Hospital in Urbana and seen by veterinary oncologist Dr. Jacqueline Wypij. Ultimately his surgery was performed by Dr. Laura Selmic, one of a small number of veterinarians who have earned the credential Fellow of Surgical Oncology.

Selmic used computed tomography (CT) imaging to assess the bone tumor, which was near the frontal sinus, an airspace between the bone that surrounds the brain and the nasal cavity. The tumor was a type of sarcoma arising from the flat bones of the body (skull, ribs, and cheek bones). A 3D model of Otter’s skull was created before the surgery.

“Skull tumors are very rare, especially in young dogs,” explains Selmic. “In cases where a bone tumor forms on an arm or leg, usually we remove the limb. In Otter’s case, we had to plan a more delicate procedure to remove the mass given its proximity to his brain and eyes.”

During surgery, she took off some cheek and jaw bone in order to drill completely around the tumor and then lifted off the tumor, exposing the brain. The outer lining of surrounding muscle was used as a graft over the brain in order to seal the area.
The University of Illinois has a rich legacy of discovery with world-class faculty who conduct research in areas ranging from the social sciences, arts, and humanities to engineering, business, and agriculture.

Gentrification index released

More Chicago neighborhoods are declining than gentrifying, despite the greater attention given to gentrification, according to a study conducted by UIC researchers.

UIC’s Voorhees Center for Neighborhood and Community Improvement, part of the College of Urban Planning & Public Affairs, released a report in 2014 chronicling the socioeconomic change of Chicago’s community areas between 1970-2010. The report focuses on a gentrification index that indicates successive neighborhood change in each of Chicago’s 77 city-defined community areas.

Researchers looked at a variety of housing and household indicators associated with gentrification including race, the percentage of residents over 65 and between 5-19, education, median family income, owner-occupied homes, and home value.

The 2010 map shows a divided city, with high-scoring, high-status neighborhoods concentrated almost exclusively on the North and near-West sides of the city. Neighborhoods with low scores are concentrated on the city’s South Side, according to the analysis. Middle-status areas decreased dramatically, from 30 to 9, coinciding with the loss of jobs and families to the suburbs, the researchers suggest.

The greatest gentrification occurred in the Loop and adjacent areas of the North and West sides. Other gentrifying areas lie along the Chicago Transit Authority’s Red and Blue train lines. By contrast, large sections of the West and South sides farther from the Loop have been “hollowed out,” the researchers say.

In the decade between 2000-2010, more communities experienced positive change than negative with new housing and changing to upper-status communities. Janet Smith, Voorhees Center co-director, says that this decade deepened the divide between rich and poor in the city.

Smith hopes the report will give policy makers, elected officials, philanthropists, and others invested in Chicago’s neighborhoods incentive to work together for creative solutions to create balanced healthy development.

Voorhees hosted community workshops in early 2015 to discuss the implications of the Gentrification Index, introduce a toolkit for communities, and hear how Chicagoans think city government should respond.

After a few days in intensive care, Otter went home and has been thriving.

Many new technologies at the UI Veterinary Teaching Hospital are available for surgeons to provide the most advanced care to their patients and to train students during surgical rotations.

The teaching hospital provides specialty, general, and emergency care for farm animals, companion animals, and exotic pets in a facility with more than 80 veterinarians. On-farm services are also available. Each year more than 20,000 animal patients from across Illinois and beyond visit the hospital. The college also has two facilities in Chicago: Medical District Veterinary Clinic at Illinois, which delivers primary care services for dogs and cats, and VSC at Illinois, offering emergency services and selected veterinary specialties.
Needs of caregivers studied

More than 65 million family caregivers in the U.S help 12 million seniors and people with disabilities to live at home. Support services for these caregivers are often isolated from each other.

Sandy Magaña, UIC professor of disability and human development, is leading a new project to establish a multi-institutional center to study the needs of families caring for people of all ages who have disabilities. The five-year, $4.3 million grant from the National Institute on Disability and Rehabilitation Research and the Administration for Community Living will bring together experts on aging and disability to guide research and to develop a national resource center.

The center will conduct several major research projects over the next five years and develop a strategic plan to prioritize research for federal funding. Interviews with family caregivers will help guide the agenda the researchers recommend to policymakers.

Trends in caregiving – such as self-directed care, in which individuals remain in charge of deciding what services and supports they need – is another focus of the center. Researchers will also evaluate the experiences of families using managed care.

While family caregivers save the federal government billions each year in long-term care services, “these caregivers aren’t getting much support in return,” says Magaña. Family caregivers themselves often suffer health and stress-related problems due to the demands of providing care at home.

“By gaining a better understanding of the experiences of family caregivers – the services they use, and the needs and challenges they face – we can help set policy and research agendas that will lead to improvements in the health and well-being of individuals with disabilities of all ages, racial and ethnic backgrounds, and the family members who help support them,” she says.

Collaborating institutions include Brandeis University, Boston College, the University of Minnesota, the National Alliance for Caregiving, and the National Council on Aging. Organizational partners include The Arc, Easter Seals, and the Sibling Leadership Network.

STARS: Student Technology, Arts & Research Symposium

UIS students performing research or generating creative works have an opportunity to present their results in a professional and supportive environment. Both undergraduate and graduate students are invited to be a part of STARS, Student Technology, Arts & Research Symposium, a campus event held each spring.

The day and a half program in April features keynote speakers in addition to the student presentations.

UIS Provost Lynn Pardie says the event “celebrates the active scholarly inquiry and creative endeavors of some of our most talented students, who have been working under the skilled mentorship of our outstanding faculty.”

Students can elect to make short oral presentations, present a poster of research, curate an exhibition of creative work, or give a performance. Benefits to students include learning to communicate with a wide audience, putting classroom knowledge into practice, building mentoring relationships
A new study that examined associations between optimism and heart health in more than 5,100 adults suggests that people with upbeat outlooks have significantly better cardiovascular health.

“Individuals with the highest levels of optimism have twice the odds of being in ideal cardiovascular health compared to their more pessimistic counterparts,” said lead author Rosalba Hernandez, a professor of social work in Urbana. “This association remains significant, even after adjusting for socio-demographic characteristics and poor mental health.”

Participants’ cardiovascular health was assessed using seven metrics: blood pressure, body mass index, fasting plasma glucose and serum cholesterol levels, dietary intake, physical activity, and tobacco use. These are the same metrics used by the American Heart Association to define heart health and being targeted by the AHA in its Life’s Simple 7 public awareness campaign.

The participants, who ranged in age from 45 to 84, also completed surveys that assessed their mental health, levels of optimism, and physical health, based upon self-reported extant medical diagnoses of arthritis, liver, and kidney disease. Data for the study were derived from the Multi-Ethnic Study of Atherosclerosis, an ongoing examination of subclinical cardiovascular disease that includes 6,000 people from six U.S. regions, including Baltimore, Chicago, Forsyth County in North Carolina, and Los Angeles County.

Individuals’ total health scores increased in tandem with their levels of optimism. People who were the most optimistic were 50 and 76 percent more likely to have total health scores in the intermediate or ideal ranges, respectively. The association between optimism and cardiovascular health was even stronger when socio-demographic characteristics such as age, race and ethnicity, income, and education status were factored in.

The findings may be of clinical significance given that a 2013 study indicated that a one-point increase in an individual’s total-health score on the LS7 was associated with an eight percent reduction in his risk of stroke, Hernandez says.

Co-authors of the study were from Northwestern, Harvard, Chapman, and Drexel universities.
“Treating depression by preventing depression”

The new Center on Depression and Resilience will use leading edge science and technology to tackle mood disorders and depression. The multidisciplinary approach brings together clinicians, educators, and researchers focused on personalized patient care and innovative research.

Depression is severely undertreated, due, in part, to the unavailability of services. The stigma associated with mental illness and depression often prevents stricken individuals from seeking treatment.

The center, based in the UIC College of Medicine’s department of psychiatry, includes practitioners, educators, and researchers in pharmacy, nursing, engineering, public health, psychology, and social work, as well as the Institute for Juvenile Research and the UIC Veterans Program.

At the October 2014 launch of the center, former Congressman Patrick Kennedy celebrated the family approach to treatment as well as the resiliency focus. He applauded “treating depression by preventing depression.”

The center is a member of the National Network of Depression Centers, a consortium of 20 academic medical centers. It was named a Center of Excellence by the network.

Anand Kumar, head of psychiatry and the director of the center, called the facility “a first step toward creating a broader center on mental illness and resilience.” He noted that basic mechanisms responsible for mood disorders remain unidentified and funding to find answers has been sharply reduced.

Major depressive disorder affects approximately 14.8 million American adults in any given year and is the leading cause of disability in the U.S. for individuals aged 15-44 years. The World Health Organization estimates that by 2020 depression will be the second leading cause of disability worldwide. As many as 15 percent of people with depression die by suicide.

Nearly one million Chicoagoans live in pharmacy deserts

Dima Qato knows that despite the ads she sees on television, there isn’t always a pharmacy on the nearest corner.

Qato and colleagues at UIC, Brown, and Northwestern universities mapped proximity and access to drug stores in neighborhoods across Chicago. They found that nearly one million people in the South and West sides of Chicago – areas with a high percentage of black or Latino residents – live in “pharmacy deserts,” where just getting to a drug store poses a challenge.

While prescription medications are widely used in the U.S. – nearly 70 percent of Americans have at least one prescription – they are frequently underused.

“There are persistent racial and ethnic disparities in the use of prescription medications,” says Qato, assistant professor of pharmacy systems, outcomes, and policy in the College of Pharmacy.

Attempts to explain medication underutilization have focused “almost exclusively” on drug affordability, but there are barriers other than cost, she says. The study defined having no pharmacy within a half-mile as a pharmacy desert for a low-income community with limited vehicle accessibility. For communities with adequate vehicle accessibility, the defining radius extends to a mile.

In the study, published in the journal Health Affairs, the researchers used data from the American Community Survey, the Census Bureau, and the Illinois Department of Financial and Professional Regulation to identify community characteristics and pharmacy locations in Chicago.
Continuous health monitoring using simple smart phones

Gait is sometimes called the “sixth vital sign” – after temperature, blood pressure, heart rate, respiratory rate, and blood oxygen level. Gait speed involves several systems of the body working together in coordination, so changes in gait can be a sign of trouble in one or more systems.

GaitTrack, an app developed by researchers on the Urbana-Champaign and Chicago campuses, turns a smartphone into a sophisticated medical device. Unlike other apps that merely count steps, GaitTrack uses eight motion parameters to perform a detailed analysis of a person’s gait, or walking pattern, which can tell physicians a great deal about a patient’s cardiopulmonary, muscular, and neurological health.

“Fitness apps and devices are tuned for healthy people,” says Bruce Schatz, head of medical information science at the U of I College of Medicine regional campus at Urbana-Champaign. “They cannot accurately measure patients with chronic disease, who are the biggest medical market. A pedometer is not a medical device. But a cheap phone with GaitTrack software is.”

Doctors often use an assessment called the six-minute walk test for patients with heart and lung disease, such as congestive heart failure, chronic obstructive pulmonary disease (COPD), and asthma. Patients with chronic disease often cannot be measured with typical pedometers since they tend to walk with shorter, more careful strides, or to shuffle, so specialized medical accelerometers are used.

The development team used GaitTrack to administer six-minute walk tests to 30 patients with chronic lung disease and found that it monitored more accurately – and more cheaply – than the medical accelerometers. In addition, they discovered that analysis of the gait data could predict lung function with 90 percent accuracy, within an age group. The results also matched well with a pulmonary function test that is a standard number used to determine treatment.

Jerry Krishnan, professor at UIC’s College of Medicine, and Schatz are now testing GaitTrack in larger trials within health systems and hope to have the app available for download soon.
UIC researchers have identified previously undescribed microlesions in brain tissue from epileptic patients. The millimeter-sized abnormalities may explain why areas of the brain that appear normal can produce severe seizures in many children and adults with epilepsy.

“Understanding what is wrong in human brain tissues that produce seizures is critical for the development of new treatments because roughly one third of patients with epilepsy don’t respond to our currently available medications,” says Dr. Jeffrey Loeb, professor and head of neurology and rehabilitation in the UIC College of Medicine and corresponding author on the study.

Epilepsy affects about one percent of people worldwide. Its hallmark is unpredictable seizures that occur when groups of neurons in the brain abnormally fire in unison. Sometimes epilepsy can be traced back to visible abnormalities in the brain where seizures start, but in many cases, there are no clear abnormalities or scarring that would account for the epileptic activity.

Loeb and colleagues searched for cellular changes associated with epilepsy by analyzing thousands of genes in tissues from 15 patients who underwent surgery to treat their epilepsy. The team used a mathematical modeling technique called cluster analysis to sort through huge amounts of genetic data.

Using the model, they predicted the presence of tiny regions of cellular abnormalities — the microlesions — in human brain tissue with high levels of epileptic electrical activity, or “high-spiking” areas, where seizures begin. Fabien Dachet, a UIC expert in bioinformatics research and first author of the study, confirmed the team’s predictions when he examined the tissue samples.

Loeb says that the discovery of the microlesions is “a huge first step” in understanding human epilepsy and presents new targets for treating the disease.

Collaborators on the study are from Montana State University and the Wayne State School of Medicine. The research was funded by the National Institutes of Health/National Institute of Neurological Disorders and Stroke.
At the UI Hospital, in clinics across Chicago, and at regional health education sites across Illinois, the University addresses health care disparities for underserved populations.

managed with appropriate health care. Importantly, about 60 percent of patients who reported a diagnosis of hypertension had elevated blood pressures ("uncontrolled" hypertension) when measured by UNISON staff. Nearly 30 percent had undiagnosed hypertension, meaning elevated blood pressures without knowing it. Uncontrolled and undiagnosed hypertension are major risk factors for heart disease, stroke, and kidney disease, indicating a substantial need for programs to address hypertension in communities served by UI Health.

UNISON Health gives UI Health providers a better understanding of the health needs of the diverse community served by the University’s health infrastructure. The data can be used to focus UI Health’s efforts and resources to improve health care in the community.

The University of Illinois Hospital & Health Sciences System (UI Health) is dedicated to health equity with nearly a dozen community health centers, a major outpatient building with more than 20 clinics, and a large academic hospital.

UI Health Plus launched

In the fall of 2014, the University of Illinois Hospital & Health Sciences System – known as UI Health – launched UI Health Plus, a type of Medicaid managed-care plan led by groups of providers, such as hospitals or health systems, instead of a commercial insurer. Funding for an Accountable Care Entity (ACE) like UI Health is on a per-member-per-month basis rather than for each service.

State of Illinois legislation mandated that a proportion of Medicaid recipients be moved from the traditional fee-for-service payment structure to a managed care “at-risk” payment model. Interim Vice President for Health Affairs Jerry Bauman says the new payment model is a sea change for the hospital and clinics.

In the ACE model, UI Health serves as the insurance company and UI Health Plus is the insurance plan. Through UI Health Plus, teams of UI Health providers work together to integrate primary, specialty, and behavioral health care as well as social services on behalf of new and existing Medicaid patients. Currently 16,500 Medicaid patients are assigned to UI Health primary care providers including those at Mile Square, the system of clinics around Chicago and in Cicero that offer comprehensive services for children and adults.

UI Health Plus takes a holistic approach to health, incorporating services for the patient population that go beyond medical needs. For example, each patient has an integrated team of care providers, including a primary care provider (physician or nurse practitioner), medical assistant, nurse, care coordinator, behavioral health provider, and clinical pharmacist. The care coordinator is responsible for managing services and connects patients to social service agencies and transportation when necessary.

The University of Illinois Hospital & Health Sciences System is dedicated to health equity. The combination of clinical care, education, and research results in high-value personalized health care and an improvement in the overall health of the communities UI Health serves.
Making the connection: Farming and robotics

Modern agriculture – from the dairy industry to the cultivation of fruit trees, grains, corn, and soybeans – uses robotic technology every day.

The University of Illinois Extension office based in Freeport gives youth between the ages of 9 and 12 a chance to learn about robotics during camps held throughout Stephenson and Jo Daviess counties in northern Illinois.

Elliot Lawrence, an Extension youth development educator, says that young people start the day learning how machines and computers work. He shows them the connection to grain elevators and dryers, drones measuring crop health, and other agricultural work such as pruning, mowing, spraying, and weed removal. In the afternoon, they work on NXT Lego robots, learning basic programming skills.

A demonstration of 3D printing connects this emerging technology with agriculture by creating replacement tractor parts under the eager eyes of the participants.

The day camps started as a summer program but demand was so strong, the Extension office hosted three more camps in the fall of 2014.

“Extension offers programs outside of traditional agriculture because many kids can’t participate in animal husbandry or horticultural projects,” says Lawrence. “Our programs connect the technology to agriculture and expose youth to careers in engineering, robotic technologies, grain processing, and other ag-oriented industries.”

Studies show that boys and girls who are involved in Extension’s 4-H program do better in science, technology, engineering, and math and are more likely to pursue careers in science.

Illinois Extension offers educational programs to residents of all of Illinois’ 102 counties. More than 1.5 million Illinois residents take part in Extension programs each year, including nearly 200,000 who participate in 4-H youth programs.

On the front lines combatting Ebola

It’s no surprise that the largest college of medicine in the U.S. would have graduates and faculty on the front lines of fighting the Ebola outbreak.

Olamide Jarrett, assistant professor of medicine (right), traveled to Sierra Leone in the fall 2014 to assist health care workers treating Ebola patients. Jarrett worked in the Ebola isolation unit in the main government hospital in Freetown, the capital of Sierra Leone. The isolation unit is where patients are tested for Ebola and receive basic medical care while awaiting results. Patients found to have Ebola are sent to treatment centers for additional care.

Jarrett helped admit and discharge patients to the isolation unit and assisted with patient care, including feeding patients, providing oral rehydration, and medication. She also helped prepare and remove the bodies of patients who died.

Doctoral graduate in epidemiology Nelli Westercamp, an epidemic intelligence service officer with the malaria branch at the Centers for Disease Control in Atlanta, worked in Uganda, and her husband and fellow UIC PhD, Matthew, went to Liberia.

In an email Nelli Westercamp said she was part of the International Infection Control team at the Emergency Operations Center in Atlanta before heading to Uganda. The team provided technical expertise on controlling Ebola, “including personal protective equipment in various health care settings, facility setup (triage, isolation, decontamination), as well as infection control training materials and curriculum.”
The University of Illinois celebrates its land-grant public service mission by offering programs and activities around the state, from Chicago to Cairo, Danville to Quincy, and beyond.

**Lincoln papers program garners financial support, honors emeritus professor**

A gift of $100,000 to the Papers of Abraham Lincoln program honors Cullom Davis, UIS professor emeritus of history. From 1988 to 2000, Davis served as editor and director of the Lincoln Legal Papers, which later expanded into the Papers of Abraham Lincoln.

The anonymous gift provides support for a long-term documentary editing project. Staff at the Papers of Abraham Lincoln are working on identifying, imaging, transcribing, annotating, and publishing all documents written by or to Abraham Lincoln during his lifetime (1809-1865). The collection will be published online with open access.

A founding faculty member of Sangamon State University (now UIS), Cullom Davis created and directed the university's Oral History Office and helped design its master's degree program in public history.

The Center for State Policy and Leadership has eight units that research, evaluate, and help form effective public policy; educate citizens on public affairs issues; and provide leadership and professional development programs. The Papers of Abraham Lincoln unit works with the Illinois Historic Preservation Agency to provide online access to view, search, and analyze the papers of one of America's greatest presidents.

The Center received the Grey Warrner Friend of Community Action Award from the Illinois Association of Community Action Agencies in 2014. The award is given to organizations that have a long and distinguished partnership with Community Action, supporting Community Action in its mission to fight poverty in Illinois. UIS has worked in partnership with IACAA for over 30 years.

In the laboratory, Lijun Rong, associate professor of microbiology and immunology, and his colleagues are working on identifying small drug molecules that can prevent some of the most dangerous viruses – including Ebola, Marburg and MERS – from infecting cells. They use a high-throughput screening facility to screen and identify drugs and agents for their virus-blocking potential. So far, they have identified a few lead molecules that show promise against Ebola.

While he is not as concerned about Ebola as he is about the flu virus, which kills hundreds of thousands of people each year, Rong believes that developing treatments for emerging viruses is important work.

“We need to prepare for new viruses to not only save lives, but to reduce some of the uncertainty and fear that they cause,” he says.
Mile Square expands services

Mile Square Health Center, the network of federally qualified health centers managed by UI Health, expanded its offerings twice in 2014.

The Humboldt Park clinic, which opened in May, offers OB/GYN services in a fully accessible setting. The new center specializes in providing women’s health services to patients with disabilities or mobility issues who live in the Humboldt Park community. It also offers primary care for men and women of all ages, in addition to birth control, menopause management, and newborn care.

The center is staffed by family nurse practitioners and certified nurse-midwives and is managed in association with UI Health and the UIC College of Nursing.

The Auburn Gresham Health and Wellness Center opened in December. The new school-based health center serves the Auburn Gresham community through a partnership with the Mile Square Health Center and the Greater Auburn Gresham Development Corporation.

The center serves students and families of Perspectives Middle Academy, Perspectives High School, and Perspectives School of Technology, all located within the Perspectives Academy building. Students and families from Barton, Wescott, and Oglesby elementary schools also use the center.

The Auburn Gresham center is one of five school-located health centers sponsored by UI Health’s Mile Square Health Center, which includes federally qualified health centers in neighborhoods throughout Chicago. Other school-based clinics are at Young Women’s Leadership Charter School, National Teachers Academy, Hope Institute Learning Academy, and Davis Elementary.

About 23,000 patients are seen at Mile Square clinics with more than 65,000 visits annually. Mile Square Health Center has 12 locations with primary and specialty care clinics in the Near West Side, South Shore, Back of the Yards, Englewood, and Cicero areas; the five school-based health centers associated with the School of Public Health; and three clinics managed in association with the College of Nursing.

Science revealed, science explored

The Carl R. Woese Institute for Genomic Biology (IGB) is home to transformative research in systems biology, cellular and metabolic engineering, and genome technology. The more than 130 faculty conduct research in agriculture, human health, the environment, and energy use and production while educating the next generation of students and postdoctoral researchers.

But the educational initiatives of the IGB team extend beyond the walls of the $75 million state-of-the-art facility on the Urbana campus. Operating under the mantra “where science meets society,” IGB offers a variety of educational programs for a range of audiences.

A 2013 Genomics for™ Judges course, attended by state of Illinois judges and justices, morphed into Genomics for™ Prosecutors the following year. The immersive experience covered the structure and function of DNA, how gene function is influenced by the environment, how genome sequences are analyzed, and the intersections between genomics and legal issues, including the patentability of genomic technologies, the relationship between genetics and criminal behavior, and the accuracy and admissibility of DNA evidence.

Building on these successful programs, IGB is part of the state’s judicial education program in 2015.
Pollen Power!, a 2014 summer camp, gave girls an opportunity to study plant responses to climate change. Groups of campers, led by female IGB graduate students, used million-dollar microscopes to image pollen, giving them first-hand experience working with female mentors in a research environment. Campers also watched pollen germinate in real-time and used pollen to study the Earth’s climate millions of years ago.

IGB also hosts Genome Day, a free event designed to educate the Urbana-Champaign community about genomes, genes, DNA, and evolution. Held at the Orpheum Children’s Science Museum, Genome Day is primarily for grade-schoolers, but community members are welcome. Exhibits and activities explore energy use and production as well as environmental, health, and other fundamental research at the IGB. Members of the campus chapter of SACNAS (Society Devoted to Advancing Hispanics, Chicanos & Native Americans in Science) are on hand to provide bilingual support for the activities.

willag.org: Illinois’ source for agricultural news

In the state of Illinois, agriculture is big business. To meet the needs of its listening community, WILL, the not-for-profit public media service of the College of Media, offers agricultural programming on the radio and online throughout the day, Monday through Friday.

The station partners with University of Illinois Extension, part of the College of Agricultural, Consumer and Environmental Sciences, to distribute regional, national, and international information and analysis of commodity markets and weather.

Each week more than 20 experts analyze the business, global flow, and weather-related issues of agricultural commodities. From the opening market report just before 9 am to the closing bell report just after 2 pm, WILL and Extension reporters and analysts provide expert information to farmers and agricultural businesses across Illinois and western Indiana.

Each year, WILLAg offers more than 330 hours of ag programming. Extension’s Illini Farm Report is broadcast by media outlets across the country, reaching more than three million people. Stories and podcasts are archived online at willag.org. Online audio features were accessed more than 93,000 times in 2014.

Illinois Public Media Director of Agricultural Programing Dave Dickey (WILL, above right) and Closing Market and Commodity Week Host Todd Gleason (Extension, above left) have more than 2,400 followers on twitter and the station’s free ag newsletter has a comparable number of subscribers.

Each spring, WILL sponsors the All Day Ag Outlook conference. The March 2015 meeting, which had about 325 participants, featured panel discussions on cash grains, corn, and soybeans as well as presentations on livestock, land values, and ag futures. The WILLAg Farm Assets Conference, a similar event in Bloomington-Normal held for the first time in late 2014, had more than 225 attendees.

“The very first broadcast ever on WILL was ag related – how to turn cream into gold,” says Dickey. “Since then listeners have counted on the ag service to bring timely and relevant marketing information and analysis so they can make informed business decisions.”

Business partners underwrite WILL and Extension’s services to the agricultural community.
Research and innovation activities that elevate ideas into sustainable businesses and global solutions help the U of I fulfill its economic development mission. The office of the vice president for research promotes economic growth for the state of Illinois by developing regional partnerships and leveraging the U of I’s physical and intellectual assets to support startup formation, corporate competitiveness, and workforce development.

Regional Partnerships: Economic Engagement Summits

The University is committed to enhancing partnerships that support regional economic development strategies across the state. In 2014, the University of Illinois participated in various economic engagement summits throughout the state.

An economic development summit in July at MidAmerica Airport in southern Illinois launched collaborative discussions and action from stakeholders in southern Illinois’ manufacturing sector. In the fall, government officials joined University representatives and manufacturing stakeholders from across the state at a series of meetings in Rockford, Peoria, and the Quad Cities to discuss manufacturing in Illinois and the potential impact of the Chicago-based Digital Manufacturing and Design Innovation Institute (DMDII). Supporting advanced manufacturing across Illinois is a priority for the University of Illinois.

Talent Retention: ThinkChicago

The University of Illinois attracts the best and brightest students from all corners of the globe. By aligning the University's research priorities with the needs of industry and allocating resources to compel recent graduates to stay in the Midwest, the University serves the state by developing a workforce pipeline for the next generation of companies and jobs.

ThinkChicago is an example of how the U of I is working with industry, government, and not-for-profit organizations to develop opportunities to promote Chicago as a nexus for innovation and technology and as an attractive place to live and work. A partnership between the U of I, the City of Chicago, World Business Chicago, Chicago Ideas Week, and 1871, ThinkChicago is aimed at attracting young, talented leaders to Chicago and the Midwest to showcase professional and social opportunities.

More than 250 students participated in ThinkChicago programs in 2014.
The University of Illinois is a key contributor to the state’s economy, from public-private partnerships to startup companies based on University research and ideas.

Corporate Competitiveness: National Engineering Forum

The University of Illinois partnered with the Council on Competitiveness and Lockheed Martin to host the National Engineering Forum (NEF) Regional Dialogue in Chicago. The event brought together thought leaders from academia, industry, and government to focus on three engineering challenges: capacity, capability, and competitiveness. Participants represented stakeholder groups that were in the best position to address the challenges and provide a dynamic view of the past, present, and future of American engineering.

U of I President Robert Easter and Urbana-Champaign College of Engineering Dean Andreas Cangellaris delivered remarks. Participants included Board Chairman Ed McMillan, Vice President for Research Larry Schook, Vice President for Academic Affairs Christophe Pierre, Chicago College of Engineering Dean Peter Nelson, and other faculty and staff from the Urbana and Chicago campuses.

Deputy Mayor Steve Koch’s keynote highlighted Chicago’s engineering achievements and strengths, including UI LABS – a research and commercialization laboratory that spun out of the U of I – and the Digital Manufacturing & Design Innovation Institute – a $320 million digital manufacturing hub that will transform American manufacturing.

Following the keynote, a moderated roundtable dialogue occurred over dinner. Participants from a variety of industries, academic institutions, and government organizations brought a wealth of knowledge and expertise to the discussion, identifying engineering challenges that are specific to the Chicago region and opportunities to overcome these challenges.

City of Chicago Deputy Mayor Steve Koch

(l-r) Illinois Institute of Technology College of Engineering Dean Natacha DePaola, Urbana-Champaign College of Engineering Dean Andreas Cangellaris, Chicago Deputy Mayor Steve Koch, Lockheed Martin VP of Engineering Jeff Wilcox, U of I President Robert Easter, Council on Competitiveness President & CEO Deborah Wince-Smith, University of Chicago Booth School of Business Dean Sunil Kumar, and UIC College of Engineering Dean Peter Nelson
The University of Illinois is a powerful economic development engine, driving growth and creating opportunities for highly skilled workers. The University’s innovation and economic development efforts channel research through a commercialization pipeline that protects, funds, supports, and launches ideas into new businesses and global solutions. A unique process drives technology transfer, company formation, and startup success, resulting in companies that stimulate and contribute to local, national, and global economies.

Proof-of-Concept Funding

Oftentimes researchers have viable technologies but they are not quite ready to enter the marketplace. Proof-of-concept funding is a bridge in the funding gap between basic scientific research and entry into the marketplace as a sustainable technology.

On the Chicago campus, the Chancellor’s Innovation Fund (CIF) is a hybrid proof-of-concept program and equity investment fund that supports the commercialization of technologies developed by UIC faculty, staff, and students. The CIF awarded more than $800,000 to 12 projects in 2014. The fund is managed by IllinoisVENTURES, the University’s startup investment firm.

On the Urbana campus, the Illinois Proof-of-Concept (IPOC) program provides funding to researchers to help demonstrate an innovation’s market viability to potential investors and partners. IPOC has helped in the formation of nine startup companies.

The IllinoisVENTURES Regional Proof-of-Concept program launched in 2014 with a network of Illinois institutions, including the University’s Urbana and Chicago campuses. The program initiative amplifies the efforts of research institutions to accelerate technology commercialization by providing 2:1 matching funding. This program is supported by the Illinois Department of Commerce & Economic Opportunity (DCEO) and the Illinois Science & Technology Coalition.

Previous proof-of-concept projects on the Urbana campus have resulted in:
• Nine new startup companies, including Revolution Medicines, a biotech startup based on the research of Professor Martin Burke that launched with $45 million in funding in 2015
• Millions of dollars raised in venture and angel funding
• Government funding through small business innovation research and technology transfer awards
NSF I-Corps

The National Science Foundation Innovation Corps (NSF I-Corps) program prepares scientists and engineers to transfer their research discoveries into commercialized technologies.

The Urbana-Champaign campus is one of ten I-Corps sites in the country and prepares teams to apply for the national I-Corps program. The program provides workshops, entrepreneur courses, networking opportunities, training, and funding to help teams move their ideas and technologies from the lab to the marketplace.

Innovation Centers

The Urbana campus research park is home to multiple centers and exploratory environments for innovation as well as talent pipelines for major corporations.

- Abbott
- AbbVie
- Ameren
- Caterpillar
- Dow
- John Deere
- Grainger
- State Farm
- Turn

I-Start

The University of Illinois and the Illinois Department of Commerce & Economic Opportunity established the I-Start Entrepreneur Assistance Program (I-Start) to advance innovation, stimulate company formation, and retain talent in Illinois. I-Start offers U of I researchers a suite of professional services, including business development, legal setup, small business innovation research (SBIR) application assistance, bookkeeping, and marketing assistance and access to an EIR mentor.

Clients have received $195,000 in I-Start assistance and secured $16.7 million in outside capital, resulting in an 85:1 leveraged investment ratio.

This program has been replicated on the Chicago campus through the EnterpriseWorksChicago Health, Technology, Innovation (HTI) initiative. HTI provides shared office and laboratory space to the Chicago entrepreneurial community.

Entrepreneurs-in-Residence

Entrepreneurs-in-Residence (EIR) are seasoned entrepreneurs who provide guidance and consulting services in a variety of business areas to new entrepreneurs and startup companies. Monthly training events cover fundamentals, including intellectual property basics, business development and sales, grant writing, investor options, and negotiations.

On the Chicago campus, EIRs provide expertise and leadership through the Proof-of-Concept Accelerator, a program that combines hands-on consulting experience for students while defining the most viable commercial pathways for early stage technologies with startup potential. In 2014, three EIRs facilitated five workshops and led two Proof-of-Concept Accelerator cohorts.

On the Urbana campus, EIRs provide business consulting to Research Park clients and U of I faculty, staff, and student entrepreneurs. In 2014, EIRs consulted with 280 distinct companies or individuals for a total of 483 consultations.

Share the Vision

The Office of Technology Management created the Share the Vision technology showcase to highlight the remarkable research, technology, and startup companies from the Urbana campus. The event connects University inventors, innovators, and entrepreneurs with corporate partners and venture capitalists with the hope that the partnerships will lead to further innovation.

In 2014, the Share the Vision technology showcase was held in San Francisco where six faculty entrepreneurs from the Urbana campus presented their research to an audience of corporate and venture capital representatives and University alumni.
The total operating budget* for the University of Illinois is $5.64 billion

*Includes $1.12 billion in payments made on behalf of the University for employee benefits and $36.9 million for the Academic Facilities Maintenance Fund Assessment (AFMFA).

WHERE DOES THE MONEY COME FROM?

- Student Tuition and Fees 20.1%
- State Payments on Behalf 19.9%
- State Revenues 11.9%
- Earnings, misc. (e.g., hospital and medical services plans) 13.5%
- US Grants and Contracts/Federal Appropriations 13.3%
- Auxiliary and Departmental Operations (e.g., bookstores, housing) 12.6%
- Institutional Funds 5.9%
- Private Gifts 2.8%

HOW IS THE MONEY SPENT?

- Instructional and Departmental Research 19.9%
- Separately Budgeted Research 16.7%
- Hospital Operations 12.6%
- Academic Support 10.3%
- Auxiliary and Independent Enterprises 9.8%
- Extension and Public Service 9.6%
- Administration and General 6.8%
- Physical Plant 6.0%
- Student Aid 5.6%
- Student Services 2.7%

First new college in Urbana-Champaign in 60 years

In March 2015, the University of Illinois Board of Trustees approved the creation of a new, technology-centered College of Medicine in Urbana-Champaign, the campus’s first new college in nearly 60 years.

President Robert Easter said the new medical school matches the Urbana campus’s land-grant mission, promising breakthroughs in health care to serve the nation’s needs — similar to the needs for advances in engineering and agriculture that were at the core of the institution’s founding nearly a century and a half ago.

“Many describe the intersection of engineering and medicine as the next frontier of scientific advancement,” Easter said. “I believe the proposed medical school has the potential to make the campus a global leader in this emerging field and to have a profound impact on both health-care delivery in this country and on economic development in this region and beyond.”

The Carle-Illinois College of Medicine will be the nation’s first engineering-based medical college. It will complement the existing College of Medicine at UIC, which has a regional medical program on the Urbana campus. UIC’s college is the nation’s largest and a leader in clinical training, producing about 300 graduates annually and one of every six doctors practicing in Illinois.

Preliminary plans call for enrolling the first 25 students in 2017 and increasing admissions gradually to 50 a year by 2023-24, when the college would educate more than 200 students annually. A financial plan shows that the college could operate without state support and would be established through start-up funding of $100 million from Carle and $135 million in gifts from donors.

Carle, an integrated, not-for-profit, regional healthcare provider with facilities across east central Illinois, focuses on high quality, patient-focused care, providing the latest treatments, and participating in new clinical research.