More than 77,000 students study on the three University of Illinois campuses and more than 20,000 earned degrees last year from hundreds of undergraduate, graduate and professional programs, including many that rank among the best in the nation.

University-wide, research funding has nearly doubled in the last decade and ranks among the top six multi-campus universities in the nation in federal research dollars.

That academic and research excellence has made the U of I one of the world’s most accomplished and respected universities, and is all rooted in a singular mission – serving society through education, research and public service and moving it forward.

The University of Illinois is truly a special place – where students from every walk of life can achieve their dreams and then use their talents to lead progress; where ideas that were once unthinkable become reality, advancing culture, improving the quality of our lives and driving economic growth.

This report offers a snapshot of a few of our latest classroom, laboratory and outreach initiatives, and our ongoing efforts to build on a nearly century-and-a-half-old legacy of service to our state and our nation.

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

Sincerely,

Robert A. Easter
President
Embroided in the early years of the Civil War, America’s future still hung in the balance when Illinois’ favorite son Abraham Lincoln put his pen to a measure that looked beyond the battlefields and ultimately helped shape the nation’s destiny.

The landmark Morrill Act revolutionized higher education, launching new land-grant campuses that opened their doors to the masses, not just the privileged. It also lifted society through education, public service and by targeting research into real-world challenges and fueling generations of technical and social progress.

The University of Illinois was among the original 37 land-grant institutions, and its legacy as a world leader in education and discovery is rooted in the Morrill Act’s principles of student access and channeling its academic and research excellence to serve the people of Illinois and the nation.

Since its first classes with just a handful of students, the University has become the state’s largest post-secondary educator. The Urbana-Champaign campus was joined by Chicago-based health colleges around the turn of the 20th century. A two-year Navy Pier campus followed after World War II and was later replaced by a comprehensive Chicago Circle campus that merged with the health colleges in 1982 to form the University of Illinois at Chicago. In 1995, Sangamon State became the University of Illinois at Springfield, adding a campus in the state capital.

More than 77,000 students study on its three campuses, and surveys last fall showed that nearly 20 percent of freshmen in Urbana and nearly 30 percent in Chicago were first-generation college students. Combined, the campuses award more than 20,000 degrees annually, expanding a global network of more than 650,000 living alumni. About 70 percent remain in Illinois, providing a highly skilled workforce and fueling the state’s economy through career earnings that are more than $1 million above those of high school graduates.
Faculty and alumni have earned 23 Nobel Prizes and pioneered innovation that includes new agricultural products, integrated circuits and plasma screens, magnetic imaging, and robotic surgery. Research funding now tops $800 million, among the best in the nation and promising breakthroughs that will add to the University’s rich tradition of discovery.

The University’s hundreds of academic programs include many ranked among the best in the nation, attracting top faculty and the best and brightest students from around the world. The Chicago-based health-sciences colleges include the nation’s largest medical school and are the top producer of Illinois physicians, dentists, pharmacists and nurses. The U of I Hospital and associated clinics logged more than 455,000 patient visits in 2012.

The University also shares its expertise through more than 700 public service and outreach programs that touch citizens in every corner of the state and beyond. More than 2.5 million Illinois residents take part every year in U of I Extension, and UIC’s Great Cities initiative reaches thousands of Chicago residents each year.

In a resolution marking the Morrill Act’s 150th anniversary in 2012, Senator Patrick Leahy of Vermont wrote that its profound impact on the lives of Americans is difficult to overstate.

“Land grant institutions have opened the doors of affordable and accessible higher education for millions of students,” he wrote. “These public institutions are the lifefood of many communities, serving as hubs of research and innovation, as drivers of economic growth, and as laboratories for critical thinking and public debate.”
Board of Trustees

The University of Illinois Board of Trustees serves as the final authority of the University. Appointed by the governor, trustees are responsible to the people of Illinois for the proper stewardship of funds, including those appropriated by the General Assembly, and for the proper administration and governance of the University. Trustees serve on a voluntary, non-remunerated basis. Three student trustees, one from each campus, are elected by the student body to one year terms; one is designated by the governor as having a binding vote and two have advisory votes.

Board members are interested in 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, budget, finance and facilities; governance, personnel and ethics; and health-care system. 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.

Trustees oversee all aspects of the University, from the three campuses and hospital to regional campuses, a range of research facilities and extension offices throughout the state.
Board of Trustees  
(with year term expires)

- Ricardo Estrada, Chicago, 2017
- Patrick Fitzgerald, Chicago, 2019
- Karen A. Hasara, Springfield, 2017
- Patricia Brown Holmes, Chicago, 2017
- Christopher G. Kennedy, Kenilworth, 2015 (Chairman)
- Timothy N. Koritz, Roscoe, 2019
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Student Trustees 2012-2013

- David Pileski, Urbana-Champaign, 2013
- Kenneth M. Thomas, Chicago, 2013
- John W. Tienken, Springfield, 2013
University Administration
uillinois.edu

President Robert A. Easter and senior staff work together to develop strategies and solutions to address educational and administrative challenges across University of Illinois campuses.

University administration (UA) provides centralized administrative services that are vital to supporting the campuses and 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 administration
- 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

Lincoln Hall, an iconic building on the Urbana campus, was rededicated 100 years to the day of the building’s original dedication, fittingly on Lincoln’s birthday in 2013. Attended by state, local and university dignitaries, the rededication celebrated the completion of the two-year, $64 million, state- and University-funded renovation.

University of Illinois Foundation
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. As of December 2012, more than $68 million has been raised.

University of Illinois Alumni Association
uiaa.org

Alumni are a permanent part of the University of Illinois family, and their support of University of Illinois and the University of Illinois Alumni Association programs, services and events fosters participation and pride in the institution. Illinois Connection, a network of 13,000 alumni and friends, advocates for the University. The universal membership model expands the reach of the organization and its members. Currently the University has more than 652,300 living alumni.
UIC’s Advanced Chemical Technology Building (ACTB) will house select faculty from chemistry, biology and physics and support cutting-edge interdisciplinary research focused on connections between chemistry, physics and biology such as tumor growth, HIV/AIDS, immunology, dental services, orthopedics and environmental science. The building is being funded by $64 million from the state, announced at a groundbreaking in August 2012.

The National Center for Supercomputing Applications (NCSA) celebrated the official launch of Blue Waters in early 2013. The supercomputer, which uses Cray XE6 technology and NVIDIA® Tesla™ GPU computing capability, provides computing resources to researchers from across the country. The system also provides educational and training opportunities for under-represented communities through an innovative education and workforce development program. Blue Waters, which has been providing cycles since 2012, is one of the fastest supercomputers in the world.
Urbana-Champaign

illinois.edu

Established in 1867, the University of Illinois at Urbana-Champaign is a world leader in research, teaching and public engagement. A premier public research university, the Urbana-Champaign campus is distinguished by the breadth and quality of its programs. Faculty conduct world-class interdisciplinary research and scholarship in an environment that enables creative thinking and promotes academic excellence. Urbana boasts Nobel Laureates, MacArthur Fellows and faculty whose research is among the most cited in their fields.

Total enrollment (Fall 2012) 44,520
Degrees awarded (2011-2012) 12,172
Operating budget (2012-2013) $1.96 billion

Chicago

uic.edu

The University of Illinois at Chicago is intimately connected to its home in one of the nation’s largest and most diverse cities. A major research center, UIC is committed to creating and disseminating new knowledge. Fifteen academic colleges offer a broad range of undergraduate and graduate degrees, from education and engineering to the liberal arts and sciences, urban affairs, architecture and business administration. UIC educates more physicians than any other university in the nation and many of Illinois’ dentists, pharmacists, nurses and other health professionals.

Total enrollment (Fall 2012) 27,875
Degrees awarded (2011-2012) 6,874
Operating budget (2012-2013) $2.06 billion
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 offers more than 40 degree-granting programs and is a recognized leader in online education. UIS offers a unique educational experience by pairing academic excellence with small class size that allows substantial student-faculty interaction, high-quality programs, and internships in public affairs, journalism and government.

Total enrollment (Fall 2012) 5,048
Degrees awarded (2011-2012) 1,326
Operating budget (2012-2013) $84.8 million
Ancient microbes in ice-sealed Antarctic lake

In the brine of a lake sealed under 65 feet of Antarctic ice, two UIC scientists discovered abundant and diverse metabolically active bacteria. The surprising findings by Peter Doran and Fabien Kenig, both professors of earth and environmental sciences, demonstrate "new boundary conditions on the limits for life" according to Doran.

The lake has a low temperature and high salinity, an already inhospitable environment further compounded by the absence of solar energy and any new inputs from the atmosphere. For their assessment, the researchers drilled cores of ice, using sanitary procedures and equipment, and collected samples of brine within the ice. Next they assessed its chemical qualities and potential for sustaining life. The brine is oxygen-free, slightly acidic and contains high levels of organic carbon, molecular hydrogen and both oxidized and reduced compounds.

Kenig hypothesizes that the molecular hydrogen might provide some of the energy needed to sustain the microbes.

Funded by the National Science Foundation and NASA, the research results, which included 15 scientists at other institutions, were published in the Proceedings of the National Academy of Sciences in late 2012.
Emiquon partnership reaps international honor

The Emiquon Complex and Dixon Refuge were designated Wetlands of International Importance by the federal government in 2012 in accordance with the Ramsar Convention on Wetlands, an international treaty signed by 162 nations committed to the protection of wetlands. Only 34 sites in the U.S. are included among the 2,000 wetlands listed worldwide.

UIS’s Therkildsen Field Station, built in 2008, is part of the 14,000-acre Emiquon Complex, which is managed by The Nature Conservancy and the U.S. Fish and Wildlife Service. For more than 80 years until 2006, the Emiquon area was drained for agricultural purposes. When water returned, so did wildlife and wetlands plants.

The field station, 45 miles northwest of Springfield on the Illinois River, hosts UIS research projects and educational initiatives, including a collection documenting species diversity, one of the factors evaluated for the Ramsar designation. Emiquon is home to hundreds of thousands of ducks, geese, and other waterbirds, another Ramsar factor. The Emiquon Complex met or exceeded eight of the nine criteria.

The preserve is a major tourist attraction in Fulton and Mason counties, generating more than $1 million into the local economy. A University study estimated that 17,000 tourists visited Emiquon in 2009.

Media impactful influencer

Using computer-aided content analysis of approximately 40,000 media articles published over a five-year period, a professor of business administration in Urbana discovered that negative media coverage may act as a trigger for strategic change.

Michael Bednar’s research showed that the impact of media coverage is stronger when a corporate board has a larger proportion of outside directors. Conversely, board members with family ties to a business are less likely to be influenced by media coverage.

Another finding demonstrated three ways media coverage impacts businesses. Simply by reporting on a firm – choosing what and who to cover – the media influence perception. Giving stakeholders – even a small number of individuals – a voice and a platform for their views can amplify a message. Investigative reporting, such as uncovering Enron’s misleading financial statements, is the final way media influences business.

The key takeaway, says Bednar, is that the media is a powerful force that can both positively and negatively influence the perception of a firm.
### Improving communications over unreliable channels

Electronic devices keep getting smaller and faster. But smaller transistor switches are more unreliable. A new multi-university research team has received $30 million to enhance the information processing power and storage capacity of integrated circuits and related systems.

The Systems On Nanoscale Information fabriCs (SONIC) Center seeks to create a new computing paradigm – using information processing instead of data processing – to extend scaling of nanoscale devices beyond what is currently feasible.

Computing devices today are primarily data pipes and data crunchers. By borrowing probabilistic techniques from the field of communications, SONIC researchers plan to transform these systems into statistical information processors that are able to infer intent and handle uncertainty while consuming much less energy than traditional computers.

The multidisciplinary effort includes faculty from three Urbana engineering departments as well as researchers from Princeton, Stanford, Carnegie Mellon, and three University of California campuses. Naresh Shanbhag, a professor of electrical and computer engineering in Urbana, is the center’s director.

### A transformative impact

A $100 million pledge to Urbana’s College of Engineering by the Illinois-based Grainger Foundation will support engineering breakthroughs by investing in research areas of transformative impact to society and in educating tomorrow’s engineering leaders.

The gift will create an endowment to provide broad research support for high-impact engineering research collaborations, such as bioengineering and big data. Engineering chairs and professorships are expected to attract and retain distinguished scholars to the college and support the next wave of engineering research and education. The gift will provide major funds for the creation of scholarships for students.

The gift will also support the renovation of Everitt Laboratory, which will house state-of-the-art facilities for engineering instructional laboratories, new engineering research centers, and the bioengineering department.

The pledge, tying the largest to any public university in 2012-2013, is in memory of William Wallace Grainger, a 1919 graduate in electrical engineering. Grainger founded W.W. Grainger Inc. in 1927 as a mail-order business selling electric motors. Today, the company is a national leader in the distribution of maintenance, repair, and operating supplies and components.
Global effort to increase photosynthetic efficiency

A five-year, $25-million grant from the Bill & Melinda Gates Foundation to researchers on the Urbana campus is part of a global effort to improve the photosynthetic properties of key food crops. RIPE (Realizing Increased Photosynthetic Efficiency) has the potential to benefit farmers around the world by increasing productivity of staple food crops such as rice and cassava, a tropical root crop.

Illinois research will take place at the Institute for Genomic Biology, a state-of-the-art facility with large shared laboratories that accommodate multiple groups and encourage cross-discipline interaction.

Steve Long, Gutgsell Endowed Professor of Crop Sciences and Plant Biology, calls the grant “game changing.” Long (right) will direct the project, which includes researchers in the UK and Australia and at the USDA/Agricultural Resource Service. Don Ort, RIPE associate director, believes that the grant holds exceptional promise for broad-impact outcomes.

Increasing photosynthetic efficiency has not yet been addressed by conventional breeding methods, though it has the potential to increase yields and also increase the efficiency with which crops use water and nitrogen.

Computer simulation models of the highly complex photosynthetic system, combined with practical engineering, will identify the best targets for improving photosynthesis efficiency.

The importance of understanding science

“Transformational” is how experts describe Maria Varelas’ approach to teaching science to elementary school students from low-income city neighborhoods. Varelas, professor of curriculum and instruction in UIC’s College of Education, links science to literacy.

Her work helps students understand science concepts and their use in everyday life. Sometimes that means turning students into actors who pretend they’re molecules transforming from a solid to a liquid or gas – or forest animals, plants, sunlight and water to enact the relationships in a food web. Varelas says such imaginative learning leads children to relate scientific concepts to each other, engaging them in a network of ideas.

Varelas and the teachers she works with see that the exercises draw on children’s “own everyday funds of knowledge,” which differ among ethnic, racial, gender, linguistic and socioeconomic groups.

Elected as charter fellow of the National Academy of Inventors:
Nick Holonyak, John Bardeen Professor of Electrical and Computer Engineering in Urbana
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.

**ACADEMICS**

- **Collaborative journal to focus on pre-modern Chinese culture**

  An Urbana professor of East Asian languages and cultures has created a new scholarly journal in partnership with Peking University and Duke University Press. *The Journal of Chinese Literature and Culture* is dedicated to the study of pre-modern (before 1911) Chinese culture.

  Zong-qi Cai expects the journal to reinforce the University’s bond with China and give the Western world access to 3,000 years of Chinese literature. Currently only a small percentage of Chinese research is offered in English-language journals.

  In addition to research articles written by and for academics, Cai plans to include feature essays geared toward a broader audience interested in Chinese literature and culture. He anticipates that the journal will present a balanced blend of research across all literary genres, with half the articles originating from scholars in East Asia and half from scholars in the Western world.

  To further encourage research, the journal will host symposiums organized around specific themes to solicit papers for special issues, which will be published in book form.
Innovative nursing educator

Maripat King has won UIC’s Silver Circle teaching award, determined by graduating seniors, three times in seven years. A nurse practitioner and clinical instructor in the College of Nursing, King teaches pathophysiology, fundamentals of nursing and medical/surgical nursing. In the fall of 2012, King started a pilot program at the University of Illinois Hospital that provides a broader and more focused experience for nursing students pursuing their bachelor of science degree.

Traditionally, groups of up to eight students are supervised by a registered nurse as they learn to perform various medical procedures with actual patients. In the new program, 16 students are divided into four groups that rotate through four hospital units.

“The students love it,” King says. She notes that the students are learning more in the smaller groups. The experienced medical professionals in the hospital expose the students to the entire process of treating patients, which puts academic learning into practice.

King says her personal reward is seeing nursing graduates enter a hospital room, confident that they can perform the procedures that will make the patient better.

“You can’t be afraid to take a chance”

Ashley Scott is a student, a mentor and a leader. She embodies the UIS philosophy of leadership lived.

A criminal justice major, Scott is the current president of the Black Student Union. She mentors UIS African American students, helping them with educational challenges with a goal to “make sure they get across the stage” and graduate. Her classes have influenced her personal philosophy as a leader, believing that it is important to take chances and to think before acting.

Scott founded the Legacy Dance Team, a hip hop culture dance team, as a freshman. She’s proud of the group, which performs at campus events such as basketball games.

Clarice Ford, director of the UIS Diversity Center and BSU advisor, is Scott’s mentor. “She’s taught me that [students] have a voice and you have to talk,” said Scott. “You can’t always sit in the background because sitting in the background will get nothing accomplished.”

Ford’s guidance has inspired Scott to consider a graduate degree, perhaps eventually pursuing a career in student services. For Ashley Scott, the UIS tradition of leadership opportunities has given her multiple ways to learn to excel.
On-the-ground learning in Malawi

Fifteen law students spent a week in Malawi to understand how microfinance works in the agricultural African nation.

Led by Christine Hurt, professor of law, Virginia Vermillion, dean of students, and Tim Larson, a geophysicist from the Illinois Geological Survey, the students traveled to the landlocked country during the 2012 spring break. The trip was the culmination of a course in law and microfinance that explored various aspects of nontraditional banking, including micro-lending, crowd financing, peer-to-peer financing and casual banking.

The group stopped in several locations in Malawi to learn about the institutions that play a part in the country’s subsistence economy. They visited for-profit, non-profit and government-owned banks, local microfinance institutions, marketplaces and a hospital. They also met with water ministers and public health officials. Geologist Larson helped the students understand the importance and impact of secure water sources in the country of 15 million where few citizens have access to running water.

The students brought with them donated school supplies, books, soccer balls, shoes and eyeglasses as well as wedding dresses that will boost an entrepreneurial rental business.

Creative inspiration

Students in the UIC School of Art and Design pursue degrees across the spectrum of creative arts including photography, industrial design, graphic design, art education, studio arts, new media arts and moving image.

Students’ works are informed by their personal experiences, urban environment, peers and faculty.

Gallery 400, the on-campus, not-for-profit arts exhibition space, showcases graduate projects and hosts visiting creative artists. In a separate gallery space on the east campus, student works are displayed twice a semester as part of graduate classes. The School of Art and Design’s online gallery (adweb.aa.uic.edu/web/gallery/) is another showcase for works by students and faculty.

UIC art students can also draw inspiration from exhibits around the city, some of which feature creations by UIC faculty, present and past. Several years ago, studio arts professor Tony Tasset’s 30-foot sculpture of an eye was installed in Pritzker Park. A 2012 exhibit at the off-campus Corbett vs. Dempsey gallery featured works by Richard Koppe, a UIC faculty member from 1963-1970. The exhibit of Koppe’s colorful abstracts of fish and birds supported art scholarships for students in the UIC College of Architecture & the Arts, which includes the School of Art and Design.

Found in the Urbana University Library:
Previously unknown poem by Carl Sandburg, “A Revolver”
Sickle cell dream team find cure for a devastating disease

Julius Means (right), chronically ill his entire life, is now “perfectly recovered” from an anemia due to sickle cell disease, according to his doctor, Damiano Rondelli, MD, a longtime hemato­logist and oncologist at the University of Illinois Hospital & Health Sciences System. A transplant of stem cell-rich bone marrow from Julius’ brother, Clifford (center), last spring did the trick, making Julius, 24, one of the first patients to receive the treatment. Another brother, Desmond (left), also received stem cells and has been cured.

This cure for sickle cell disease, a genetic affliction affecting about 100,000 Americans, is among the advances in treatment and research offered exclusively in the Chicago area by a special team of physicians brought together at UI Health to simultaneously confront the disease’s many different threats to the human body. The Sickle Cell Center treats more than 500 adults and 190 pediatric patients.

According to Lewis Hsu, MD, research efforts at the hospital are moving past the previous emphases on palliative care and sickle cell crisis management and into more preventive or curative treatments. Hsu, pediatric director of the UI Health Sickle Cell Center, was recruited to the team in 2011 from Children’s National Medical Center in Washington, D.C. Other team members are Victor Gordeuk, MD, Robert Molokie, MD, and Joseph DeSimone, PhD.
Making personalized health a reality

The right dose for the right patient: That’s the goal of all pharmacists and physicians. And now, the University of Illinois Hospital & Health Sciences System is pioneering the use of genetics to make that personalized-health aim a reality.

In its work with new patients taking warfarin (a widely prescribed drug used to treat blood clots and prevent strokes), UI Health is the first in the nation to automatically use pharmacogenetics – the science that predicts a response to drugs based upon a person’s genetic makeup – to prescribe the correct dosage. The project is a collaboration between the UIC colleges of pharmacy and medicine.

Determining the right warfarin dose can be difficult because of variables such as diet, age, and the use of other medications. Patients who take a warfarin dose larger than they can tolerate are at risk of life-threatening bleeding. Those who receive too low a dose are at risk of equally dangerous blood clots.

The warfarin genotyping service is the first time that the particular genetic predisposition of the patient comes into play in individualized care at UI Health, but it won’t be the last. The team built the system in such a way that it is scalable to other genetic markers and other medications.

Rejuvenated Mile Square to reduce health disparities

Mile Square Health Center has been a mainstay of the University of Illinois Hospital & Health Sciences System for more than two decades, but it’s gaining a new facility and a new purpose as it focuses on the health system’s increased commitment to addressing health care disparities and providing care for the underserved.

In 2013, Mile Square is moving its main clinic from its longtime location about a mile northwest of the University of Illinois’ Chicago campus into a newly constructed, 60,000-square-foot facility on Wood Street and Roosevelt Road, just two blocks from UI Hospital and the specialized care available there.

The new clinic and the expansion of Mile Square’s community-based programs will further the center’s broad reach. During the 2013 fiscal year, Mile Square will provide care for an estimated 75,000 patients, many of them with incomes below the poverty level.

The opening of the Mile Square’s new clinic is a milestone for the U of I: It will be the first major new clinical facility opened by the University since Illinois Health’s Outpatient Care Center opened in 1999.

Students from several of UIC’s health care colleges, including medicine and nursing, work at Mile Square during their practicums and internships.
A direct line to UI Health physicians and better care

When a referring physician encounters a complex case requiring highly specialized care, a variety of hospitals in Chicago may be suitable for consultation or advanced care. With the introduction of the Illinois Provider Access Line – or IPAL – in July 2012, referring physicians can use a direct attending-to-attending physician hotline, simplifying the process for them to transfer patients to the University of Illinois Hospital & Health Sciences System.

The IPAL dedicated toll-free number (1.855.455.IPAL) is available 24/7. Transfer center nurses answer the hotline and page the attending physician on call for the requested service. Once the attending physicians are able to discuss the case, the transfer center nurse records pertinent information and facilitates an inpatient transfer if necessary.

Since its introduction, IPAL has increased the efficiency and number of patient transfers. Transfer requests increased by 34 percent in the first six months of operation. During the same timeframe, the number of visits to the referring physician section of the UI Health website increased by 50 percent.

Early 2013 saw the launch of the external IPAL marketing campaign, offering efficient transfers and highly specialized care to physicians in the greater Chicagoland region, as well as outlying areas lacking access to tertiary care.

Providing answers and hope

Women who experience repeated failed pregnancies are left grief-stricken and searching for answers. UI Health established a new program in 2013 to treat recurring pregnancy loss, giving women hope.

Led by Mary Stephenson, a physician and head of obstetrics and gynecology in the College of Medicine and at UI Health, the Recurrent Pregnancy Loss (RPL) program treats the nearly 5 percent of women who have suffered two or more miscarriages. Stephenson, an internationally recognized expert in RPL reproductive immunology and genetics, evaluates patients to try to identify the cause of RPL, develop a treatment plan, and determine the likelihood of success with the next pregnancy. RPL causes include hormonal imbalance, diabetes and obesity; treatments include antibiotics, hormone therapy and surgery.

The program also monitors patients during their first trimester and offers education as well as emotional support, both of which, says Stephenson, have been shown to improve outcomes.
Yellowstone National Park is a scientifically significant site for data collection in geobiology, drawing scientists investigating questions ranging from the emergence of life on Earth to the search for life on other planets.

An interdisciplinary team of experts, led by Carole Palmer, professor in Urbana’s Graduate School of Library and Information Science and director of the Center for Informatics Research in Science and Scholarship (CIRSS), was awarded nearly $500,000 from the Institute of Museum and Library Services to develop a framework for curating the scientific data collected at Yellowstone.

The project is a collaboration with Bruce Fouke, professor in geology, microbiology, and the Institute for Genomic Biology, resource managers at Yellowstone, and data repository experts at Johns Hopkins University. The team will develop model policies and processes applicable to the curation of diverse digital data collected at national parks and important research sites, such as coral reefs, deep crustal biosphere locations, and other cradles of biodiversity.

CIRSS is a leader in data curation research and education aimed at advancing technologies, services, and the professional workforce for preserving valuable data assets and making them accessible and usable across disciplines for future research and innovation.
Students shine in Holiday Stars initiative

UIS is a vital part of the Springfield community. Each fall and winter, students take part in the UIS Holiday Stars project, a campus-wide service initiative coordinated by the Volunteer and Civic Engagement Center.

A week before Halloween, teams of UIS students delivered information to community residents about the canned-goods collection for the Central Illinois Foodbank. On Halloween night, instead of picking up treats, 14 teams collected more than 6,500 pounds of non-perishable food items that residents donated. The 2012 good-hearted competition involved more than 150 students and, for the third year in a row, Lambda Pi Eta communications honor society collected the most food.

The canned-goods Trick or Treat project is one of three initiatives under the Holiday Stars umbrella. UIS students also collect toiletries for the armed forces and assemble gift baskets for UIS student families.

Jazz – It’s more than music

A two-week jazz academy for Chicago public school students in fifth through 12th grade does more than provide an opportunity for the youngsters to play music. The two-week conservatory experience also exposes them to higher education and to a musical genre that is uniquely American.

The students learn to play scales and musical exercises on plastic buckets and real instruments. They attend live performances and see videos and hear recordings of jazz greats such as Ella Fitzgerald and Cab Calloway.

The UIC Jazz Academy, a partnership with the Chicago Jazz Philharmonic, was developed by UIC’s departments of theatre and music and Orbert Davis, clinical associate professor of jazz and education and artistic director of the Jazz Philharmonic.

Davis says the academy, in its fifth year, addresses several critical issues: the lack of music education in schools, the need for underserved children to take an interest in higher education, and preservation of jazz for the next generation. Davis notes that the camp also helps students learn life skills such as listening and teamwork.
Battery innovation hub announced

Two University of Illinois campuses are part of a 14-institution partnership working to develop more powerful and lower cost batteries, a major energy challenge identified by the US Department of Energy.

The $120 million federally funded project, announced in December 2012 by Secretary of Energy Steven Chu, will be led by Argonne National Laboratory senior scientist George Crabtree (above), also a UIC distinguished professor of physics and electrical and mechanical engineering. Crabtree is an internationally recognized expert in energy research. Jeffrey Moore, a professor in the Department of Chemistry on the Urbana campus, will serve as principal investigator of one of the four research thrusts of the project.

The Batteries and Energy Storage Hub, known as the Joint Center for Energy Storage Research, received a five-year grant with possible renewal for another five years. Funding from Illinois Gov. Pat Quinn will help build the JCESR facility on the Argonne campus in Lemont.

JCESR is the fourth federal Energy Innovation Hub established since 2010. Hubs are major integrated research centers with researchers from different institutions and technical backgrounds that combine basic and applied research with engineering to accelerate scientific discovery in critical areas. Other university partners include Northwestern University, the University of Chicago and the University of Michigan. National lab partners include Lawrence Berkeley, Pacific Northwest, Sandia and SLAC National Accelerator Laboratory. Four industrial partners – Dow Chemical Company, Applied Materials Inc., Johnson Controls Inc. and Clean Energy Trust – will help bring JCESR advances to the marketplace.
**A vision built upon collective input**

An independent, University-affiliated research technology center designed to make the state and Chicago a hub of innovation and build the region’s economy was given a green light in early 2013.

UI LABS will provide a new approach to translational research and training, harnessing the research power of the state, Chicago, University and business to solve society’s grandest technology challenges. It will be modeled after Bell Labs, a technology center that produced innovations including the transistor, the laser and cellular phone systems.

Research teams will be assembled from the three campuses and other institutions to work “without the typical constraints of the academic environment, to create industry-targeted needs on short notice,” according to Vice President for Research Lawrence Schook.

UI LABS will be funded through philanthropy, grants and partnerships with industry.

**Transient, biodegradable electronics**

Urbana researchers have demonstrated a new type of biodegradable electronics technology called transient electronics that could introduce new design paradigms for medical implants, environmental monitors and consumer devices.

John A. Rogers, Lee J. Flory-Founder Professor of Engineering, led the multidisciplinary research team that demonstrated the new technology, which is designed to physically disappear in a controlled and programmed manner. As a result, electronic devices could be small, robust and high performance, yet also biocompatible and capable of dissolving completely in water or in bodily fluids.

Rogers and his DARPA-funded collaborators from Tufts and Northwestern University feel their findings open up new areas of application for the technology.

**Offices offer matchmaking, mobile apps**

The University’s two Offices of Technology Management (OTM) help move research to the market and connect researchers with industry and venture capitalists, driving economic growth for the state.

Share the Vision 2012 Technology Showcase connected Urbana faculty and their technologies and research with VC and corporate technology executives to facilitate future business relationships. Topics included advanced materials, clean energy, and health systems and devices.

Another OTM initiative provides faculty and staff with developer tools for mobile-device apps under enterprise licensing agreements with Apple and Android. In 2012, approximately 20 mobile apps from a variety of units across all three campuses were released. An OTM-sponsored brownbag offered tools and information to budding developers.

Just for fun is a virtual dugout for Illini baseball fans. On the serious side, an app combines nitrogen rate research with economic fluctuations data to provide a customized nitrogen rate for farm fields. UIC’s digoxin calculator provides dosing recommendations for the treatment of heart failure and atrial fibrillation.
FY 2013

Financials

The total operating budget* for the University of Illinois is $5.42 billion.

* Includes $1.02 billion in payments made on behalf of the University for employee benefits and $35.4 million for the Academic Facilities Maintenance Fund Assessment (AFMFA).

By the Numbers

- Enrollment (fall 2012): 77,443
- Degrees awarded (2011-2012): 20,372
- Living alumni (August 2012): 652,343
- Student organizations: 1,421
- Volumes in campus libraries: 13 million+
- Beds in the U of I Hospital: 495
- IL counties sending students to the University (of 102): 101
- U of I buildings: 800+
- Acreage: 2,433

Where does the money come from?

- Student Tuition and Fees: 19.3%
- State Payments on Behalf: 18.9%
- State Revenues: 12.3%
- Earnings, Misc. (Hospital & Medical Services Plans): 13.9%
- Institutional Funds: 6.3%
- US Grants and Contracts/Federal Appropriations: 15.0%
- Auxiliary & Departmental Operations (Bookstores, Housing): 11.7%
- Private Gifts: 2.6%

How is the money spent?

- Instructional and Departmental Research: 19.5%
- Hospital Operations: 13.1%
- Academic Support: 10.0%
- Administration and General: 6.9%
- Student Aid: 5.3%
uillinois.edu/annual-report2013

Impact Illinois 2013
is published by the University of Illinois
Office for University Relations.

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Board of Trustees

Executive director: Thomas P. Hardy
Editor: Ginny Hudak-David
A team of neurosurgeons from the University of Illinois Hospital & Health Sciences System view a simulation of the human brain vasculature and cortical tissue in the CAVE2™ Hybrid Reality Environment. This project is a collaboration of the UIC Electronic Visualization Laboratory (EVL), the UIC Bioengineering Department’s Laboratory for Product and Process Design and the UIC College of Medicine’s Department of Neurosurgery.