

LAS

NEWS

COLLEGE OF LIBERAL ARTS & SCIENCES | SPRING 2019

New ideas

Up-and-coming LAS faculty
rethink science and humanity

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SPRING 2019

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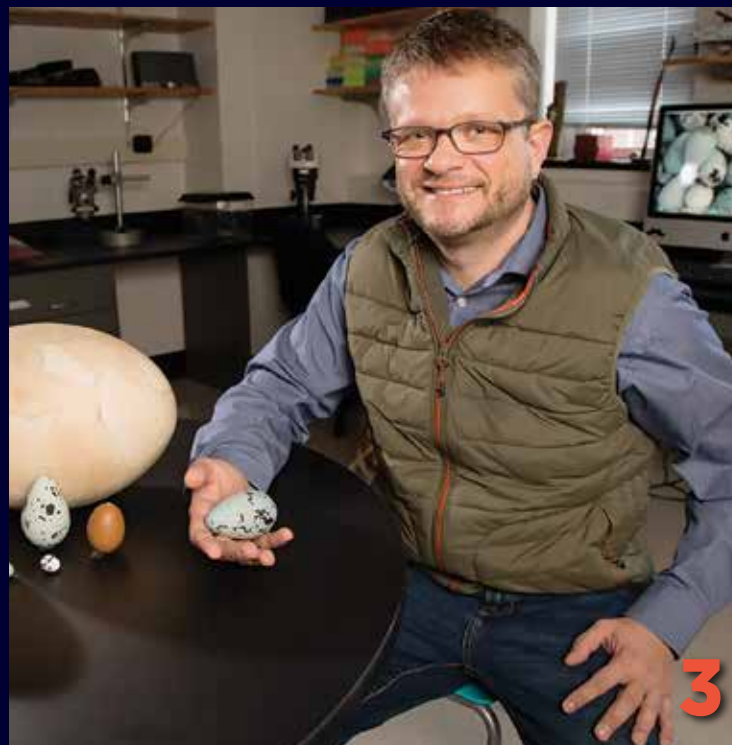
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GREETINGS FROM THE

College of Liberal Arts & Sciences

Dear alumni and friends,

Thank you for reading LAS News magazine. With each issue of the magazine we try to highlight a particular story, idea, or development occurring in the college, and the choice for the Spring 2019 issue was clear: faculty. The past few months have been a remarkable affirmation that the College of LAS is home to many of the brightest teachers and researchers in academia.

Any summary of recent faculty accolades is bound to be incomplete, but I will mention a few highlights here. Rebecca Sandefur, professor of sociology and law, received a MacArthur Fellowship—also known as a “genius grant”—to continue her vital work in studying and improving access to social justice. Meanwhile, May Berenbaum, the renowned head of the Department of Entomology, was named editor-in-chief of the Proceedings of the National Academy of Sciences, one of the most influential scientific journals in the world.

Gene Robinson, professor of entomology and director of the Carl R. Woese Institute for Genomic Biology, was elected to the National Academy of Medicine. Renske van der Veen, a professor of chemistry, has received a Packard Fellowship in Science and Engineering. Joaquín Rodríguez-López, 35, was named a scientist to watch by Science News magazine, in a prestigious distinction reserved for young scientists. Finally, Marianne Kalinke, professor emerita of Germanic languages and literatures, was awarded the Knight’s Cross of the Order of the Falcon, Iceland’s highest honor, for her work on medieval Icelandic literature.

Read more about the aforementioned professors in this magazine. But we also want to highlight a few that you may not yet have heard about, and that’s the impetus for our cover story. It features four early-career faculty members who are at the cutting edge of ideas in science, social and behavioral science, and the humanities. Through their stories you’ll learn how we are pioneering new approaches in the study of infant cognition, cyber culture, catalysts, and language revitalization. The highlighted faculty members work with passion, energy, and an urge to deepen understanding and improve our quality of life. For that, they represent many faculty members in the College of LAS.

With my best wishes,

Feng Sheng Hu,
Harry E. Preble Dean

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Dave Evensen

Graphic Designer
Heather Gillett

LAS News is published for alumni and friends of the College of Liberal Arts & Sciences, at the University of Illinois at Urbana-Champaign, by the Office of Communications and Marketing, 2040 Lincoln Hall, 702 S. Wright St., Urbana, IL 61801, (217) 333-1350. The college also publishes a monthly email newsletter, LAS News Online. Please direct all inquiries about either publication to the editor at laseditor@illinois.edu or at the above address.

This publication is available in an accessible electronic format at www.las.illinois.edu/news/magazine. Or, contact us via the email address above to request the magazine in a different accessible format.

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U of I's **Association for Women in Mathematics** has won the 2018 AWM Student Chapter Award for Community Outreach, providing programs that help teach complex mathematical concepts to girls. (Photo courtesy of AWM.) ■

Faculty and staff honored

A partial list of faculty honors this past summer and fall include:

- **Conrad Scholars:** **Melissa Bowles**, Spanish and Portuguese; **Ruth Nicole Brown**, gender and women's studies; **Eric Calderwood**, comparative and world literature; **Josue David Cisneros**, communication; **Jessica Greenberg**, anthropology; and **Anke Pinkert**, Germanic languages and literature.
- **University Scholars:** **Alison Bell**, animal biology; and **Luisa-Elena Delgado**, Spanish and Portuguese.
- **Unit for Criticism Faculty Fellowship Awards:** **Anustup Basu** of English; **Clara Bosak-Schroeder** of classics; **Lila Adib Sharif** of Asian American studies; and **David Wilson** of geography and geographic information science.
- **Provost's Campus Distinguished Promotion Award:** **Alison M. Bell**, animal biology; **Nathan Dunfield**, mathematics; **Rebecca C. Fuller**, animal biology; **Brendan Andrew Harley**, chemical and biomolecular engineering; **Eduardo Ledesma**, Spanish and Portuguese; and **Douglas A. Mitchell**, chemistry.
- **Leanne Knobloch**, communication, National Communication Association's Charles H. Woolbert Award for Research.
- **Zaida "Zan" Luthey-Schulten**, chemistry, fellow of the Biophysical Society.
- **Prashant Jain**, chemistry, fellow of the Council to the Royal Society of Chemistry.
- **Mei-Po Kwan**, geography and geographic information science, fellow of the United Kingdom's Academy of Social Sciences.
- **M. Christina White**, chemistry, ACS Award for Creative Work in Synthetic Organic Chemistry.

See a complete list of faculty honors at go.las.illinois.edu/honors-spring19magazine. ■

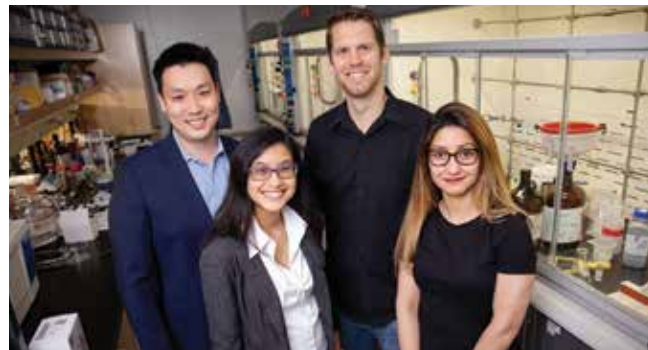
Reflecting on the 1960s political conventions



History professor **Marsha Barrett**, a specialist in U.S. political history and African-American history, said that in contrast to the political conventions of today, the political conventions of the 1960s challenged party establishment. She is completing a book on the decline of moderation in American politics. ■

Molecular probe illuminates cancer cells in live mice

Chemistry professor **Jefferson Chan** and other U of I researchers have developed a molecular probe called **AlDeSense** that can tag and track cancer stem cells in cell cultures and live organisms. This new development in cancer research will reveal how these elusive cancer cells change and respond to treatment. ■



From left: **Jefferson Chan**, **Chelsea Anorma**, **Thomas Bearrood**, and **Jamila Hedhli**.

Alumnus nominated to be National Academy of Engineering president



John Anderson (MS, '69; PhD, '71; chemical engineering) has been nominated to be the National Academy of Engineering's (NAE) next president. Anderson has served on the faculties of Cornell University, Carnegie Mellon University, Case Western Reserve University, and Illinois Institute of Technology, and is president emeritus and distinguished professor of chemical engineering at Illinois Tech. His six-year term at NAE begins in July pending a vote this month. He is the sole candidate. ■

Two ancient populations that diverged in the Americas later reconverged



Anthropology professor **Ripan Malhi** and his colleagues are using genomic techniques to better understand ancient migration patterns in the Americas. According to their study, ancient populations that diverged in the Americas for a millenia later reconverged as they moved south. By studying genomes, Malhi and his colleagues found that all native populations in North, Central, and South America drew genetic ancestry related to ancient populations in eastern Canada. ■



Mark Hauber, professor of animal biology, and colleagues have determined how natural selection has helped a particular bird survive in its precarious environment. Using fake eggs produced by a 3D printer, Hauber determined that thick-billed murre (pictured here, courtesy of



Michael Jeffords and Susan Post), which nest on narrow, rocky ledges, produce pointy eggs that are uniquely shaped to reduce the risk of rolling. ■



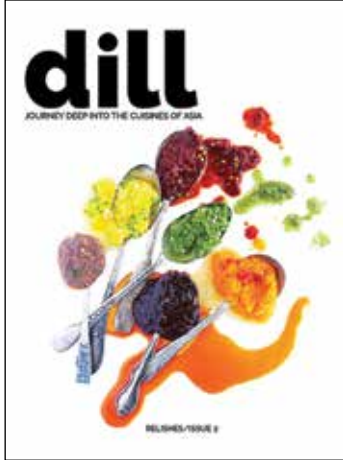
It's not often that undergraduate students make a real, scholarly impact on their field of study, but students along with **Scott Althaus**, professor of political science and communication, published a paper that details the significance of newsreels in the evolution of the news industry. (Photo courtesy of Scott Althaus.) ■

Faculty member and alumnus selected as Packard Fellows



Michael Baym (Photo courtesy of Michael Baym) and **Renske van der Veen**.

Renske van der Veen, a chemistry professor at Illinois, and **Michael Baym** (BS, '03, mathematics), a professor at Harvard Medical School, have received Packard Fellowships in Science and Engineering. They were among 18 researchers selected nationwide and will receive \$875,000 over five years for their research. Baym's research focuses on antibiotic resistance, while van der Veen's research focuses on energy storage. ■



Shayne Chammavanijakul, an entrepreneur and linguistics major, is the founder of Dill Magazine, a new, widely praised food magazine that focuses on authentic Asian cuisine. (Image courtesy of Shayne Chammavanijakul.) ■

Department receives its largest ever endowment

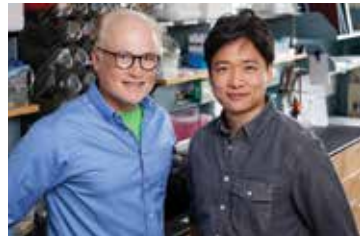


Candace and James Frame.

The Department of Geography and Geographic Information Science has received its largest ever endowment from **Candace Frame** (BS, '72, geography) and **James Frame**. The gift will support four different departmental purposes: a named professorship, a young faculty award, graduate fellowships, and student tuition assistance, grants, research support, travel, conference attendance, equipment needs, and other educational expenses incurred by students. (Photo courtesy of the Frames.) ■

Study: Stomach bug attacks energy generation in host cells

Microbiology professor **Steven Blanke**, graduate student Ik-Jung Kim, and their colleagues report that the bacterium *Helicobacter pylori*—a major contributor to gastritis, ulcers and stomach cancer—resists the body's immune defenses by shutting down energy production within the cells of the stomach lining that serve as a barrier to infection. The new findings will aid efforts to better understand *H. pylori* infections. ■



Steven Blanke and Ik-Jung Kim.

Professor selected to lead influential journal



May Berenbaum has been appointed editor-in-chief of the Proceedings of the National Academy of Sciences (PNAS), which is among the most influential journals in the world covering biological, physical, and social sciences. Berenbaum, head of the Department of Entomology, holds the Swanlund Chair of Entomology, is a member of the National Academy of Sciences, and has served on the PNAS editorial board since 1998. ■

Improving worldwide estimates of diversity

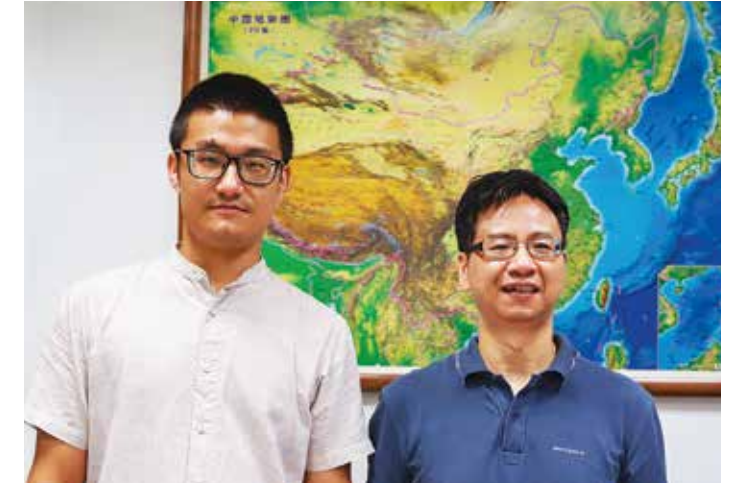


With support from the Cline Center for Advanced Social Research, **Avital Livny**, professor of political science, is working to improve estimates of worldwide diversity. With two-thirds of the world's nations failing to collect ethnic and religious data in their censuses, Livny is gathering data from about 9 million people in 175 countries and will compile these estimates of diversity into a public web portal. ■

Alumnus selected to lead White House Office of Science and Technology Policy



Kelvin Droegemeier (MS, '82; PhD, '85, atmospheric science) is directing the White House Office of Science and Technology Policy. Droegemeier has made significant contributions to the atmospheric science field and his appointment was widely supported by scientists. Droegemeier is the first non-physicist in this role since 1976. (Photo courtesy of the University of Oklahoma.) ■



Illinois geology professor **Xiaodong Song**, right, and graduate student Jiangtao Li have created a model using high-resolution seismic data that could lend insight to future earthquakes along the Tibetan Plateau. ■

Wilfred van der Donk reappointed as a Howard Hughes Medical Institute Investigator



Wilfred van der Donk, the Richard E. Heckert Chair of Chemistry, has been reappointed as a Howard Hughes Medical Institute Investigator renewed until 2025. The Howard Hughes Medical Institute Investigator Program supports nearly 300 investigators at more than 60 research institutions. This prestigious program recognizes outstanding researchers by providing flexible funding and enabling them to continue their research. ■



U of I hosted scholars from all over the world for the **Human-Animal Studies Summer Institute**, analyzing the implications and discoveries coming from the study of human-animal relations. (Photo courtesy of Jane Desmond.) ■

Entomologist elected to National Academy of Medicine



Gene Robinson, professor of entomology and director of the Carl R. Woese Institute for Genomic Biology, has received one of the highest honors in his field by being elected to the National Academy of Medicine. Robinson, an international leader in honey bee research, has been a pioneer in the use of genomics to study bees' brains and social behavior. ■

Campus announces Illinois Commitment tuition program



A new financial aid program aims to make attending the University of Illinois at Urbana-Champaign more affordable for qualifying families in Illinois. **Illinois Commitment** will provide financial awards to cover the tuition and campus fees for in-state students whose family income is less than \$61,000, the current median family income in Illinois. ■

Almost 150 students in the College of LAS are receiving more than \$500,000 in college-level scholarships during the 2018-19 school year. The students, their loved ones, and donors were honored on campus at an **LAS Scholarship Celebration** last fall. ■



Protein found to be key component in irregular brain activity



Nien-Pei Tsai and Kwan Young Lee.

Molecular and integrative physiology professor **Nien-Pei Tsai**, research scientist **Kwan Young Lee**, and their colleagues have identified the protein p53 as being involved in irregular brain cell activity seen in autism spectrum disorders and epilepsy. Although p53 is well-known as a tumor suppressor, the findings are expected to open new avenues for understanding the factors that contribute to these developmental disabilities. ■



Marianne Kalinke, the Center for Advanced Study Professor Emerita of Germanic Languages and Literatures (fourth from left, next to the president of Iceland) received the highest honor from Iceland, the Knight's Cross of the Order of the Falcon, for her work in medieval Icelandic literature. (Photo by the Office of the President in Iceland.) ■

Chemistry professor named a scientist to watch



Illinois chemistry professor **Joaquín Rodríguez-López** has been named to Science News magazine's prestigious SN 10: Scientists to Watch list, selecting scientists based on their potential to shape the science of the future. Rodríguez-López is being recognized for his efforts to expand affordable, renewable energy by designing materials to better store electric charge. ■



Jeff Trapp, professor of atmospheric sciences, co-authored a new study that details a link between the loss of Arctic sea ice and a drop in the number of tornado touchdowns in the U.S. ■

Professor believes supercomputers can strengthen democracy



Wendy K. Tam Cho, professor of political science, statistics, mathematics, and law, believes that supercomputers can strengthen democracy by preventing gerrymandering before it happens. After a recent U.S. Supreme Court case did not rule on the limits of partisan redistricting, Cho hopes to be part of the solution by continuing to develop theoretical foundations for statistical simulation to curtail partisan redistricting. ■

With help from a fellowship with the National Center for Supercomputing Applications, **Rini Mehta**, professor of comparative and world literature, is developing the interface Indian Cinema in Context, where users can explore the history of Indian cinema and track Indian film families. ■



Entomologist receives \$1 million to research the impact of pesticides on bees



Entomology professor **Alexandra Harmon-Threatt** has received a grant from the U.S. Department of Agriculture's National Institute of Food and Agriculture to help support her research on how pesticides, called neonicotinoids, are affecting the soil and contributing to the overall decline in the bee population. ■



Randall Sadler, professor of linguistics, was pivotal in bringing the Computer-Assisted Language Instruction Consortium 2018 Conference, a major event focusing on the newest advancements in learning languages, to Illinois. ■

Campus invests \$5 million in Investment for Growth proposals



The U of I is investing \$5 million in 14 campus projects, including three in the College of LAS, through the **Investment for Growth** program. The LAS projects include a humanities professional resources center, a neurology behavioral assessment laboratory, and an expansion of the study abroad pipeline in the School of Integrative Biology. ■

The late professor emerita **Nina Baym**, professor emerita of English, is being remembered as an internationally recognized scholar and as a pioneer in the study of American women writers. She died June 15, 2018. ■



Professor wins creativity award for his research on water



Geography and geographic information science professor **Murugesu Sivapalan** has been awarded a Prince Sultan Bin Abdulaziz International Prize for Water, given to scientists for creative and effective methods of addressing water scarcity. Sivapalan and his colleague have launched a new scientific field, called socio-hydrology, focusing on the interactions between growing populations and water systems. ■



U of I linguistics researchers **Benjamin Weissman** and **Darren Tanner** found that the brain processes ironic emojis the same way as ironic language, indicating that they can change the interpretation of a sentence. ■

Professor named Getty Residential Scholar



Mara Wade, professor of Germanic languages and literatures, has been awarded with the Getty Residential Scholar Grant. The grant allowed Wade to work on her book, "The Politics of Culture: Public Monuments in the Free Imperial City, Nuernberg 1521-1620," which analyzes the relationship between public monuments and cultural politics in the German city of Nuernberg. ■

DEFINING MOMENTS

Key events changed the lives of LAS Alumni Award winners

LAS
ALUMNI
AWARDS
2018

One of this year's LAS alumni award winners saw her life change permanently when planes struck the World Trade Center in 2001. That's when she decided to return to the National Security Agency.

Another award winner's defining moment came when she decided to program a microscope in the lab of her professor. Another's life changed after an off-hand comment about an internship opening.

Each of this year's alumni award winners has experienced a defining moment that prompted them to change course and define new approaches in economics, microbiology, chemistry, mathematics, cellular and structural biology, and humanitarian work.



JOHN WITT, PHD, '61, CHEMISTRY, AND MARGARET WITT

DEAN'S QUADRANGLE AWARD

John Witt has always been a Big Ten guy, but it was the Big Four and the excellent reputation of the Department of Chemistry that drew him to Illinois.

The Big Four was the name given to four internationally renowned organic chemistry professors at Illinois. Witt credits one of them, the late Harold Snyder, Witt's adviser, with giving him the academic foundation for his success. Witt was on the founding team of NutraSweet—the phenomenally successful artificial sweetener—and today he maintains close ties with Illinois.

In the late 1990s, he and his wife, Margaret, set up a fellowship program for U of I chemistry graduate students, and in 2013 they established the Witt Endowed Professorship in Chemistry. Recently, the Witts created an endowment for undergraduates.

Witt also served on the Department of Chemistry's alumni advisory board to help ensure that chemistry remains at the top in the country.



JOANNE CHORY, MS, '80, PHD, '84, MICROBIOLOGY

LAS ALUMNI ACHIEVEMENT AWARD

Joanne Chory's approach to plant genetics has been described as "letting the mutants lead."

Chory's use of mutant species, grown in total darkness, led to her first breakthrough discovery in 1989, regarding

how plant cells respond to light. It led to other discoveries about plant growth, development, and cellular structure.

Chory directs the Harnessing Plants Initiative at the Salk Institute, where she and her colleagues hope to develop plants that better sequester carbon dioxide in their roots. This could dramatically reduce the amount of carbon dioxide being released into the atmosphere.

"This is a good time for biologists to step up," she said.



RICHARD CLARIDA, BS, '79, ECONOMICS
LAS ALUMNI ACHIEVEMENT AWARD

When Richard Clarida attended Illinois, he recorded music in the attic studio of a friend. After graduating in economics, he always vowed he would record again—but it took more than

35 years before he put out a music CD in 2016.

He had a good excuse for the delay.

During the interval, he taught at Yale and Columbia, served on President Reagan's Council of Economic Advisers, worked as assistant secretary with the United States Treasury, and consulted for the Group of 30, a project led by Paul Volcker, then chairman of the Federal Reserve. Most recently, he has been chosen to serve as vice chairman of the Board of Governors of the Federal Reserve System.

The model he created with several co-authors to predict the economy's reaction to shocks has been picked up by virtually every central bank in the world. Clarida is also working on a second CD—when he finds the time.



MARY LYNN REED, MS, '90, PHD, '95, MATHEMATICS

LAS ALUMNI ACHIEVEMENT AWARD

Two days after planes struck the World Trade Center on September 11, 2001, Mary Lynn Reed began doing counterterrorism work at a research center in La Jolla, California that does work exclusively for the National Security Agency.

Reed had already worked for the agency for several years in Maryland, which made it possible for her to go back to doing NSA work immediately.

In 2016 Reed became NSA's chief of mathematics research—not bad for someone who thought she might not make it through the doctoral program in math at Illinois.

In the midst of her pressure-cooker job, she makes time for another passion: creative writing. She's published several short stories and is working on a novel about the coming-of-age of a female mathematician.



ANNE CARPENTER, PHD, '03, CELLULAR AND STRUCTURAL BIOLOGY
LAS OUTSTANDING YOUNG ALUMNI AWARD

Anne Carpenter's life changed dramatically the weekend she decided to automate the process of measuring dots of chromatin in the lab of cell and developmental biology professor Andrew Belmont.

That got her hooked on programming.

Today, Carpenter is at the Broad Institute of Harvard and MIT, leading a research group that works on CellProfiler, which she developed as the first open-source, high-throughput cell image analysis software. It's being used for breakthrough research on diseases ranging from leukemia and Ebola to cancer and tuberculosis.

Biologists around the world use this software to measure more than 1,000 features of cells. CellProfiler has been cited in more than 6,000 academic papers.

Carpenter said software engineering is a surprising path for a cell biologist.

"That happens when you follow your curiosity," she said.



REBECCA SNYDERS DARR, BS, '90, PSYCHOLOGY

LAS ALUMNI HUMANITARIAN AWARD

Valentine's Day was the one day of the year when a woman named Sarah got hurt the worst. But in 2005 she fled her abusive relationship and soon became one of the first to find shelter in a new WINGS safe house in Rolling Meadows, Illinois, directed by Rebecca Snyders Darr.

WINGS is the largest network of domestic abuse shelters in

Illinois. Darr led the effort to build the Rolling Meadows safe house, as well as another safe house in Chicago in 2013, not to mention several transitional homes and apartments for adults and children escaping domestic violence.

Since Darr began as executive director of WINGS in 1999, the organization has expanded its staff from eight people to 80, and it has grown its assets from \$600,000 to \$22 million. Most importantly, WINGS has helped thousands of abuse victims. Ninety-four percent of those in WINGS safe houses do not return to their abuser, and the success rate of their longer program is even better: 100 percent.



MARIE TRZUPEK LYNCH, BA, '94, HISTORY

LAS ALUMNI HUMANITARIAN AWARD

Marie Trzupke Lynch was a student when a neighbor told her about an internship in the Chicago mayor's office, opening the door to her big break.

However, Lynch didn't always have such connections. Growing up in a blue-collar neighborhood in the Chicago suburbs, she learned that where you live can have a big impact on the opportunities you're given.

Today, she is the founding president and CEO of Skills for Chicagoland's Future, which is built on an innovative, demand-driven model focused on job placements.

Since 2012, the program has grown from a staff of 10 to 45 in Chicago, and they have gone from placing 539 people in jobs the first year to placing over 1,200 per year, most of them low-income.

The Skills program also launched in Rhode Island in 2016, the beginning of a national expansion. As Lynch explains, Skills acts like that helpful neighbor, getting people in the door. ■

TO READ LONGER PROFILES of the winners, please visit go.las.illinois.edu/defining-moments18.

By Doug Peterson



Books from LAS

Hopi runners, jobs in math-related fields, and more: Here are a few of the latest books written and edited by faculty.

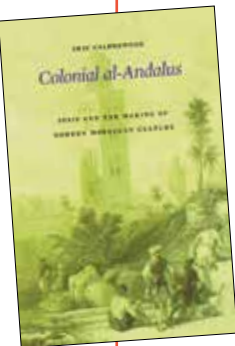
“Latinas and Latinos on TV: Colorblind Comedy in the Post-racial Network Era,” by **Isabel Molina-Guzmán**, professor of media and cinema studies and Latina/Latino studies, examines the representation and implication of Latino characters in popular television shows such as “The Office” and “Modern Family” and their implications in the “post-racial” television era. (Image courtesy of University of Arizona Press.)



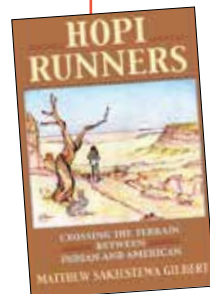
“Epic Heroes on Screen,” co-edited by **Antony Augoustakis**, head of the Department of Classics, features discussions about ancient heroes, from Hercules to leaders of the Greek and Roman worlds, who appear on film, TV, and other works. (Image courtesy of Edinburgh University Press.)



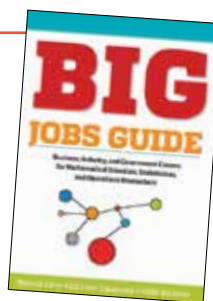
“Colonial al-Andalus: Spain and the Making of Modern Moroccan Culture,” by **Eric Calderwood**, professor of comparative and world literature, draws on a rich archive of Spanish, Arabic, French, and Catalan information sources to reconstruct how shared pasts became raw material for divergent contemporary ideologies, including, in particular, Spanish fascism and Moroccan nationalism in the 20th century. (Image courtesy of Harvard University Press.)



“Hopi Runners: Crossing the Terrain Between Indian and American,” by **Matthew Sakiestewa Gilbert**, professor and director of the American Indian Studies Program, tells the story of a group of runners from his northern Arizona tribal community, the Hopi, who in the early 1900s displayed record-breaking athleticism. For the Hopis, running was ceremonial and sacred. (Image courtesy of University Press of Kansas.)



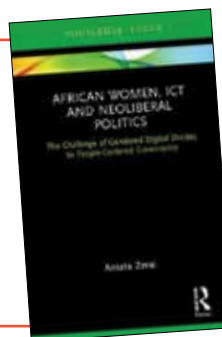
“BIG Jobs Guide: Business, Industry, and Government Careers for Mathematical Scientists, Statisticians, and Operations Researchers,” co-authored by **Richard Laugesen**, professor of mathematics, offers insight about various job opportunities in the field of mathematics, statistics, and operations research—a field projected to grow by almost 30 percent in the next decade. (Image courtesy of the Society for Industrial & Applied Mathematics, U.S.)



“Metallurgical Design and Industry: Prehistory to the Space Age,” by **Brett Kaufman**, professor of classics, is an edited volume to examine metallurgical technologies and their place in society throughout the centuries. The applications covered in depth include finance, mining and smelting, bridges, armor, aircraft, and power generation. (Image courtesy of Springer.)



“African Women, ICT and Neoliberal Politics: The Challenge of Gendered Digital Divides to People-Centered Governance,” by **Assata Zerai**, professor of sociology, gender and women’s studies, African studies and global studies, examines how women’s access to information and communications technology makes a difference to the structure of governance structures and demonstrates how African women’s scholarship must be used to improve governance in African countries. (Image courtesy of Routledge.)
Zerai also co-edited “Safe Water, Sanitation and Early Childhood Malnutrition in East Africa,” published by Rowman and Littlefield, regarding how women’s collaborative work has helped communities deal with low resources.



The fairy godmother of love

LAS @Work



LAS ALUMNA BELA GANDHI HELPS PEOPLE MAKE THE RIGHT CONNECTION

Bela Gandhi always had a knack for matchmaking. Many of the people she set up eventually married and had children. In 2009, Gandhi finally turned her talent for making love connections into a career and launched the Smart Dating Academy. She regularly gives dating advice on television programs; Steve Harvey has dubbed her the fairy godmother of love.

Degrees: BA, '93, Germanic languages and literatures; BS, '93, finance

What is the Smart Dating Academy?

We help single professionals from all over the country figure out why they aren't meeting the right people, and then help them to put a plan together to meet people who will give them happy and healthy love. Our typical clients

are successful men and women, from age 22-75.

We have clients fill out questionnaires about their backgrounds, relationships, and why they think they're single. We do a “360 Feedback” survey where we ask their family, friends, exes, and others: “Why hasn't this person found a partner yet?” We put together a plan for each person and meet them to kick off the process.

What has been your career path?

I grew up in a loving family with educated parents who immigrated from Bombay, India, to the suburbs of Chicago. After I graduated from Illinois, I went to work for Arthur Andersen Consulting and then my dad's business, Coatings & Chemicals Corporation.

During that entire time, I was the

go-to girl for dating and love advice. My first match (made at the U of I) became engaged in 1999, and I knew at that moment that I wanted to help people find love. It took me 10 years to build up the courage, put a plan together, and make it happen.

How did your major prepare you for your career?

It helped me understand the true essence of being a human being. Human beings are human beings, and they say, think, and feel the same things whether it's in English, German, or Gujarati.

Read more LAS@Work features at go.las.illinois.edu/LASatWork. ■

By Dave Evensen

Images above (L-R): Top: Bela Gandhi. Left: The Smart Dating Academy teaches people to sometimes date against their instincts to make the right connection, Gandhi said. Center: Gandhi on set with television personality Steve Harvey. Gandhi gives dating advice on several shows. Right: Gandhi and her husband Andrew Annacone. (Photos courtesy of Bela Gandhi.)

NEW FACULTY

join the College of LAS

SCHOLARS EMBARK ON TEACHING AND RESEARCH
ACROSS MANY DEPARTMENTS



SEPKOSKI

THE COLLEGE OF LIBERAL ARTS & SCIENCES WELCOMED 21 NEW FACULTY THIS FALL, in fields ranging from American Indian studies to mathematics and economics. Video interviews and a full list of new professors can be found at go.las.illinois.edu/newfaculty-fall18.

David Sepkoski

David Sepkoski has spent his career blending the fields of science and history. After working at the Max Planck Institute for the History of Science, the author of three books was appointed the Thomas M. Siebel Chair in History of Science at Illinois, where he is one of the most well-known science historians in the field.

“The Siebel Chair is just a perfect opportunity because this position is designed for someone like me,” Sepkoski said.

Dustin Tahmahkera

Dustin Tahmahkera is an enrolled citizen of the Comanche Nation of Oklahoma and an interdisciplinary scholar of North American indigenities, critical media, and sound. He hopes to help build the American Indian Studies Program into one of the premier indigenous studies programs in the country.

“I’ll be developing a new lab that I call ‘sounds indigenous’ on native soundscapes and ways of listening to what it means to be indigenous across the Americas,” Tahmahkera said.

Charee Thompson

Charee Thompson’s research in the Department of Communication will focus on how people in close relationships and in patient-provider relationships communicate about health. She looks forward to collaborating on health-related research across the university.

“We don’t live in someone’s body, so we don’t know what it’s like to experience their health issues,” Thompson said. “I’m interested in how doctors and other potential support providers experience uncertainty about someone’s health issues.”

Chelsea Walton

As a child, Chelsea Walton would search for “Mathematics + beautiful” on the internet. Today, as a Sloan Foundation fellow and a new professor of mathematics at Illinois, her attitude remains the same.

“The beauty of math is that it’s all about discovering and communicating new truths,” Walton said. She also has a strong interest in increasing the inclusion of underrepresented groups in mathematics. ■

By Jessica Bursztynsky and Dave Evensen

schizophrenia

Creating a new way to study

Studying mild symptoms could shine light on a serious illness

An Illinois psychology professor has created a new psychological scale that could change the way researchers study schizophrenia—by learning more about those who are showing milder symptoms of the mental illness.

Thomas Kwapil and his team created the Multidimensional Schizotypy Scale (MSS) and Multidimensional Schizotypy Scale-Brief (MSS-B), which are questionnaire measures that assess symptoms of schizophrenia in patients and nonpatients. For the past 40 years, researchers have been using a variety of scales to assess schizotypy and the risk for schizophrenia, but Kwapil said most scales have become outdated or contain problematic language.

Estimates vary, but the National Institute of Mental Health reports that up to 2 million Americans suffer from the disease.

“We wanted to build on all of these measures that had been great in many ways before but then also try to address all of these limitations,” Kwapil said.

Kwapil’s research—he has published four articles on the scales in leading peer-reviewed journals in 2018—is based on the idea that these milder symptoms and full-blown schizophrenia share the same underlying causes. Symptoms vary across a spectrum, he said, and can range from milder symptoms to full-blown schizophrenia. For example, a person may see auras around other people or hear voices, but never go on to develop a severe illness.

“There’s this continuum of symptoms and impairment, and schizophrenia is the most severe manifestation of that,” Kwapil said. “This becomes important because by being able to study these milder manifestations of schizophrenia, it’s going to help us better be able to understand the causes of the disorder, and hopefully be able to identify people who are at risk.”

By identifying people at risk, Kwapil said researchers can intervene and develop measures to help prevent further complications.

“When someone does begin developing this disorder, it’s a hard road back and a lot of people have lifelong suffering from the illness,” Kwapil said. ■

By Jessica Bursztynsky



Thomas Kwapil



LEDESMA



FOUT



The bridge builders

Up-and-coming faculty in LAS expand how we think about science and humanity



DAVIS



HYDE



In 1995, **Eduardo Ledesma** graduated with a bachelor's degree in civil engineering from the University of Illinois at Urbana-Champaign and became a bridge engineer. For 10 years, he got up every morning, went to work and did what he had trained to do. And then, something changed.

"I had always been fascinated by the humanities," said Ledesma. So, just for fun, he started taking night courses in Spanish and Latin American literature at the University of Illinois at Chicago. That led to a master's degree, which led to a doctorate in romance languages and literatures at Harvard, which ultimately led him back to Illinois, where he's currently an associate professor of Spanish and Portuguese. Today, he's still building bridges, only now they're metaphorical as he makes new connections at the intersection of engineering, technology, and culture.

There are almost 320 assistant and associate professors in LAS like him who are making similar connections. For this issue, we spoke with four of them—Ledesma; Alison Fout in chemistry; Jenny Davis in anthropology, American Indian studies, and gender and women's studies; and Daniel Hyde in psychology. Together, they provide just a small sampling of the amazing up-and-coming faculty members who are building bridges, from the known to somewhere beyond. For many, it's too soon to know where their research may lead. The scaffolding they're building could broaden what we already know, solve important global problems, or simply lay the groundwork for others who will one day venture beyond our current horizon. Like all the explorers who've come before them, however, they believe that the potential rewards make the journey worthwhile.

Since joining the university in 2012, Ledesma has emerged as one of the leading researchers in 20th- and 21st-century Latin American culture and literary studies. He's currently completing his second book, "Cinemas of Marginality: Experimental, Avant-Garde and Documentary Film in Ibero-America," and working on a third, which will explore how those who are visually impaired interact with the visual arts.

He's part of a field of study known as digital humanities, which uses digital tools to enhance the study of humanities and traditional humanistic disciplines to understand the digital world. With a background in engineering and computer science, it was the perfect fit.

"I find the intersection between the humanities and the digital as the ideal space to study our 21st century cyber culture," Ledesma said. Whether it's researching digital poetry from Uruguay, or "live coding," which uses improvised computer code to create music and visual effects, he loves exploring the various ways that humans both adapt—and adapt to—technology.



A graph by Eduardo Ledesma examines the frequency of names of 20th-century Latin American and Spanish dictators in Spanish-language films. (Image courtesy of Eduardo Ledesma.)

In his new book, "Blind Cinema: Visually Impaired Filmmakers and Technologies of Sight," there's an entire chapter devoted to a genre of videos made by visually impaired vloggers narrating their life experiences. Because they may only experience texts as sounds and images as audio descriptions, visually impaired YouTubers use special software to produce and upload videos, create vlogs, and establish a sense of community. Through contextual and visual analysis, he hopes to enhance the interpretations of cultural trends in this unique community.

While Ledesma studies the power of images to transform lives, **Alison Fout** is exploring the power of images to save them. As an associate professor in chemistry, she's researching new catalysts that could one day solve a growing list of environmental, biological, and energy problems. Currently, she's part of a team working on a replacement for gadolinium, a common contrast agent used in magnetic resonance imaging that's been in the news since a 2014 study indicated it could be retained in the brain, leading to possible health problems.

In addition to being safer and more sustainable, the new catalyst could aid in providing contrast agents that generate higher resolution images and one day enable physicians to track the movement of cancer cells. "If you have a cancer cell and you inject this, the cancer cell will target the agent and then you can track it



Safiyah Muhammad, a student in Alison Fout's laboratory, synthesizes new compounds in a laboratory glovebox which maintains an atmosphere free of oxygen and water. (Photo by Lauren Hagler.)

through the body," Fout said. "That's the dream."

That's why grants are important. And Fout has earned several, including the prestigious Marion Milligan Mason Award for women in the chemical sciences from the American Association for the Advancement of Science, which came with a \$50,000 grant. With these funds, along with grants from the National Science Foundation, the College of LAS, and others, she can continue to work on the new contrast agent, while exploring other important research pursuits.

One of those could be of particular interest to anyone who's ever wondered what happens to farm chemicals once they're in the soil.

"Here in the Midwest, we have lots of farming and fertilizer. We also have ground water runoff, so we're seeing nitrates, nitrites, phosphates—all of those starting to build up in our water," she said. Currently, filtering is the only way to remove these elements.

(continued on page 16)

Pictured on left page, clockwise from top: a live coding event (courtesy of Eduardo Ledesma); researchers work in a glovebox in Alison Fout's chemistry lab; Daniel Hyde works with a baby and his grandmother to study infant cognition (Photo by Kaitlin Southworth); students in a Collaborative Language Institute at the University of Alaska, Fairbanks (Photo courtesy of Jenny Davis.)

But that's not working, resulting in problems like the vast red algae bloom in Florida that's endangered a wide range of marine life. A catalyst she's exploring could one day break those substances down, using a simple chemical reaction to create cleaner and safer water.

While she's breaking things down, **Jenny Davis** is working in the opposite direction. Davis has long been part of an extensive effort to document and revitalize a uniquely American language that was quickly losing its voice.

"I've always been very interested in language and culture," explained Davis, who began studying linguistics during her undergraduate studies at Oklahoma State University. "I also started to think about what might be happening with my own community, the Chickasaw Nation in Oklahoma." According to Davis, all indigenous languages in the U.S. are endangered, and some have even gone dormant with no living first-language speakers. Chickasaw was on that path.

When Davis began working with the Chickasaw Nation as part of a summer internship back in 2007, there were only about 100 first-language speakers and very few resources, including one dictionary and a book that was originally released with cassette tapes back in the 1980s. Today, it's a very different story. The nation now has its own independent language department, which offers university courses and immersion programs, as well as a speaker's council with about 24 remaining speakers who provide translations and approve new words. That's important, because to thrive, every living language needs to adapt. Recent additions include a word for "nerd," the equivalent of "LOL," and yes—there's even a word for "light saber." It's all very exciting for Davis, who was fortunate to be there in the beginning, providing the analysis and ethnography essential in the language revitalization process.

Today, in addition to her professorial appointments she directs



Jenny Davis is working to create training programs that would help communities document and revitalize native languages. Above, a language revitalization workshop she conducted in Ecuador in 2017. (Photo courtesy of Jenny Davis).

the Native American and Indigenous Languages Lab. Her work concentrates on contemporary indigenous languages and identity, and interprets how those in tribal lands and urban communities navigate those spaces and connect with their language, whether it's face-to-face or using the latest phone app.

She's also currently working with other U.S. and Canadian scholars to develop a training program that could help other communities learn how to do language documentation and revitalization. Ultimately, she hopes that the skills now siloed away in academic spaces can be redistributed to local communities where they can take on a life of their own. "If I do my job right, I'll be

completely obsolete," Davis said.

Language, like any other skill, requires a high degree of thinking. That's the domain of **Dan Hyde**, who's exploring cognitive development in young children. "In my research, I try to understand how humans come to understand abstract concepts," explained Hyde. "The majority of my work focuses on how people develop concepts of numbers and mathematics."



Lowen, a child taking part in Dan Hyde's research on distinguishing true and false beliefs, watches a video while wearing headgear that's part of a noninvasive optical system used to estimate changes in brain activity called near-infrared spectroscopy. It has proven to be well-suited for monitoring brain activity in infants. (Photo by Kaitlin Southworth.)

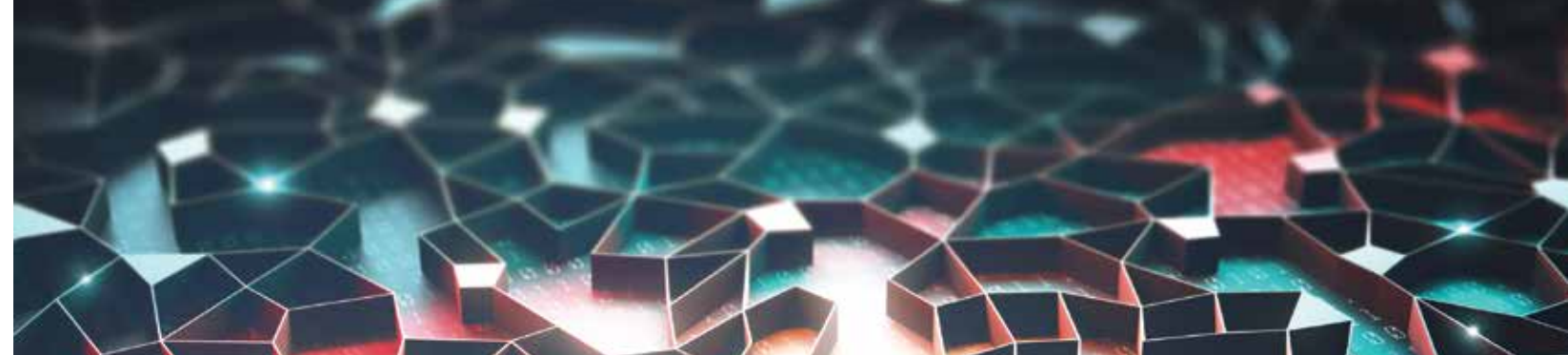
According to Hyde, a recent study of preschool-aged children showed that their understanding of objects was related to their understanding of number words. "The nature of the brain response suggested that differences arose in how attention was distributed to the objects," said Hyde, who found that children who had a better understanding of number words distributed attention to objects more effectively than others. Because preschool numerical abilities are a strong predictor of mathematical achievements in elementary school, his work could eventually help parents and educators prepare young children to excel in math.

It's not the first time Hyde has explored the cognitive functions in children. In an earlier study he focused on the "theory of mind," which is essentially our ability to assess the thoughts and beliefs of others. Previously, many researchers thought that very young children could not grasp these concepts until they were old enough to verbalize them. But using a new technology called near-infrared spectroscopy that measures how light scatters on the surface of the brain, Hyde was able to show that infants as young as 7 months might be able to distinguish when others hold true and false beliefs.

Today, it's far too early to tell where all of the work by Hyde and the others will lead. Studies need to be verified. Trials need to be completed. In some cases, the models that govern the way things have "always been done" may have to be rethought or thrown away. But that's how progress is made. One question. One leap. One bridge at a time. At Illinois, those bridges are being built by an amazing group of young professors who are constantly expanding our horizons. And only time will tell where their impressive spans may lead. ■

By John Turner

By John Turner



CAMPUS PLANS NEW BUILDING FOR DATA SCIENCE

U OF I ALSO MOVES FORWARD WITH ALTGELD HALL RENOVATION



The University of Illinois is moving forward with plans to expand its leadership in the mathematical sciences by constructing a new building west of the Main Quad by 2022 and renovating Altgeld Hall by 2024.

Derek Fultz, director of facilities for the College of LAS, said the university is negotiating architect proposals for the roughly \$100 million project which is expected to increase capacity, modernize learning spaces, and encourage innovation in data science and other mathematical sciences. Fultz anticipates that the university will sign a contract for the project by this spring.

Campus is still raising money for the project. The new building will be constructed on the site of **Illini Hall**, which is scheduled to be razed beginning in fall 2020. It will be replaced with a larger, world-class facility for learning and discovery, including a data science center that does not currently exist on



campus. The departments of Statistics and Mathematics will continue to use space in the new building.

The new building will be funded in part with a portion of the \$500 million in state capital funding that was approved last spring to launch the Illinois Innovation Network and Discovery Partners Institute. The university will also contribute to the new building.

The Altgeld Hall renovation will receive funding from campus in addition to funding from donations and other sources. Some contributions have already been secured. The building's inclusion on the National Register of Historic Places

means that certain historic features will be restored, while new features will be added to increase energy efficiency and accessibility. State-of-the-art classroom space will be created to improve the learning environment for the thousands of students who take classes in Altgeld Hall each semester.

"This has tremendous implications for the Departments of Mathematics and Statistics, and the entire college," said **Feng Sheng Hu**, the Harry E. Preble Dean of the College of LAS. "The new data science center will be pivotal to further establishing LAS as a leader in this field." ■

LEARN MORE about the Altgeld and Illini Hall project at go.las.illinois.edu/project-details19.

By the Office for University Relations and the College of LAS

IMAGE OF THE AGES

Some of the busts portraying historical and mythological figures at the Literatures & Languages Library, which serves the Department of the Classics and other LAS units, have been on campus for almost as long as the University of Illinois has existed. We took a few off the shelves for a group photo. From left: Artemis, Odysseus, Homer, Julius Caesar (donated by Hugh Dawson, MA, '60; PhD, '71; English), and Apollo. (Photo by Jesse Wallace.)



Talking more deeply about language



Silvina Montrul expands the study of bilingualism and second language acquisition

Through almost 19 years of research at Illinois, **Silvina Montrul**, professor of Spanish and Portuguese and linguistics, has become a leader in understanding bilingualism and second-language acquisition.

“Heritage languages are precious linguistic, cultural, and personal resources for individuals and for society,” she said, “but due to their minority status, many are vulnerable to loss.”

Please explain your area of research.

I am curious and passionate about understanding the process and outcome of second-language acquisition in adults and children as well as the wax and wane of the language(s) of bilinguals. I study the nature of linguistic knowledge in native and non-native speakers of different languages, with specific focus on grammatical development. Although I have done pioneering work on the acquisition of Spanish, I have worked with other colleagues in other languages, including English, Turkish, Korean, Arabic, Hindi, French, Romanian, and Brazilian Portuguese.

What are you currently working on?

I am writing a book on linguistic changes in three immigrant languages in the United States: Hindi, Spanish, and Romanian.



Teachers at the University Language Academy, which Silvina Montrul launched in 2010, promote the learning of a second language in childhood. (Photo courtesy of the University Language Academy.)

This study advances our understanding of language contact and how children are the main agents of language change. My findings have implications for language maintenance, revitalization, and education for immigrants who want to preserve and transmit their languages to the next generation.

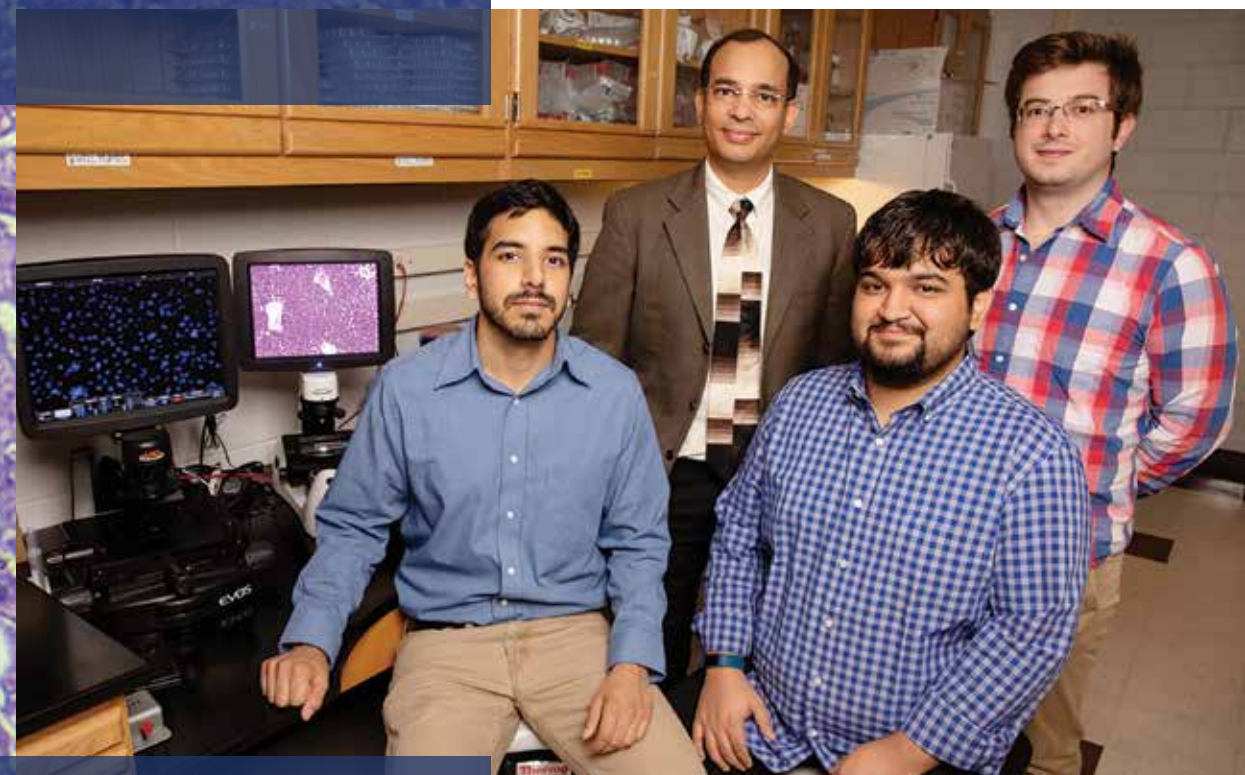
What is the impact of your work?

My research has shown that childhood is the optimal time to learn and maintain languages. Acquisition of a home language is not automatic, and it needs academic support. Children with high proficiency in two languages enjoy cognitive, academic, cultural, and economic benefits of bilingualism. Unfortunately, there is still significant misinformation about bilinguals and bilingualism. There are deficiencies in educational practices, social attitudes, and policies that deprive bilingual speakers of their native language. Heritage languages have a lot to teach us about language, languages, cognition, society and culture, linguistic theories, education, and language policies. It is important that our findings reach the public that needs this information. ■

TO READ ABOUT more LAS faculty experts, visit go.las.illinois.edu/experts-spring19.

STUDY REVEALS HOW **LIVER CELLS** REPAIR **THEMSELVES**

Damage to organ triggers regeneration



Biochemistry professor Auinash Kalsotra, second from left, and his team, including, from left, graduate students Waqar Arif, Joseph Seimetz, and Sushant Bangru, uncovered the molecular underpinnings of liver regeneration.

In Greek mythology, Zeus punishes the trickster Prometheus by chaining him to a rock and sending an eagle to eat a portion of his liver every day, in perpetuity. It was the right organ to target: Researchers at Illinois have discovered that the liver has the ability to regenerate itself, though not overnight nor for eternity.

New research conducted by biochemists at the University of Illinois has determined how damaged liver cells repair and restore themselves through a signal to return to an early stage of postnatal organ development. The findings are reported in the journal *Nature Structural & Molecular Biology*.

“The liver is a resilient organ,” said biochemistry professor **Auinash Kalsotra**, who led the new research. “It can restore up to 70 percent of lost mass and function after just a few weeks.

“We know that in a healthy adult liver, the cells are dormant and rarely undergo cell division,” he said. “However, if the liver is damaged, the liver cells re-enter the cell cycle to divide and produce more of themselves.”

The human liver can become chronically damaged by toxins such as alcohol and even certain medicines, but still continue to function and self-repair, Kalsotra said.

“This research looked at what is happening at the molecular level in a damaged liver that enables it to regenerate while still performing normal functions,” he said.

Using a mouse model of a liver severely damaged by toxins, the researchers compared injured adult liver cells with healthy cells present during a stage of development just after birth. They found that injured cells undergo a partial reprogramming that returns them to a neonatal state of gene expression.

The team discovered that fragments of messenger RNA, the molecular blueprints for proteins, are rearranged and processed in regenerating liver cells in a manner reminiscent of the neonatal period of development. ■

By Steph Adams, School of Molecular and Cellular Biology

Seeking a better route to justice



(Photos by John D. & Catherine T. MacArthur Foundation.)

REBECCA SANDEFUR wins a MacArthur Fellowship for her ideas on the legal system

Sometimes an unusual comparison can bring big problems to light. Back in the late 1990s, when Rebecca Sandefur was working on her doctoral degree at the University of Chicago, she was troubled by a discrepancy she saw between the U.S. legal system and public schools.

Both were large and publicly funded institutions, but while schools were easily accessible, the court system was so complex that people needed to hire lawyers to handle it. That observation led Sandefur, a professor of sociology and law at Illinois since 2011, to a widely recognized career of studying how to improve access to civil justice.

What are some of her solutions? Finding alternatives (including technological alternatives) to lawyers, streamlining court processes, and making legal services more affordable for low-income people.

“We know there are much better ways to do this work than the way our justice system does it now,” Sandefur said.

Her ideas are being noticed. This past October, Sandefur was awarded a MacArthur Fellowship, more commonly called a “genius grant,” from the John D. and Catherine T. MacArthur Foundation. She was one of 25 scholars to receive the prestigious award and \$625,000 prize in 2018. The grant is reserved for scholars who have demonstrated exceptional creativity and are “on the precipice of great discovery or a game-changing idea,” according to the MacArthur Foundation.

Sandefur is regularly sought out by organizations trying to improve access to civil justice, and she is a key contributor to a new

global program at the Organization for Economic Co-Operation and Development to improve access to justice.

“Although the outcomes of civil cases are potentially life-changing—including eviction, loss of custody of a child, wage garnishment, or loss of government or insurance benefits—one or more parties lack legal representation in more than three-quarters of cases filed in state civil courts today,” the foundation said, in announcing Sandefur’s grant. “Sandefur’s investigations of the civil justice needs of low-income populations are shedding light on the availability of civil legal aid services, the help-seeking behavior of individuals facing civil legal issues, and the impact of lawyers in civil cases.”

Sandefur is credited for reviving the dormant field of civil justice research as she maps inequalities in access to legal assistance and studies how to improve the resolution of legal disputes. She created the first systematic national mapping of civil legal providers, and determined that—in addition to cost—aversion to lawyers, fear and pessimism about the courts, and failure to recognize a problem as “legal” inhibit low-income individuals from seeking a lawyer’s assistance.

For example, many victims of wage theft, a common legal problem where employers don’t properly compensate employees for overtime, weekend, or holiday work, do not understand that their employer is violating a law.

Sandefur’s research has also revealed that the quality and quantity of pro bono services are highly dependent on market

forces, and that they are less available during economic downturns. Furthermore, Sandefur has found that the advantage of a lawyer often resides in the lawyer’s ability to navigate rules and procedures rather than providing a deep knowledge of the law.

In fact, Sandefur believes that the gap in access to civil justice experienced by low-income individuals might be bridged without lawyers. Sandefur has evaluated pilot projects where court navigators without formal legal training guided tenants through housing battles.

In New York City, where 90 percent of tenants facing eviction do not have a lawyer, Sandefur found that litigants assisted by navigators were more likely to present defenses, more successful at winning legal disputes over housing repairs, and less likely to be evicted.

Sandefur plans to use the award money to research ways to improve legal access by helping people navigate procedures typically handled by lawyers. While some solutions will use new roles for people, some will use technology. For example, smart phone apps, such as JustFix, are already capable of handling tasks traditionally handled by a lawyer, such as notifying landlords of habitability problems.

Sandefur also hopes to help automate some processes that would help clear a congested justice system. With a third of all Americans with debts in collections, Sandefur believes that a digitized process can help filter out baseless lawsuits that clog the courts.

Her research comes with high stakes. People without sufficient legal knowledge or assistance are more likely to suffer bankruptcy, evictions, and loss of child custody disputes.

“It’s not just me writing a paper that gets published in a journal. It’s actual lives,” Sandefur said. “The reason I do this work is to try to make lives a tiny bit better. It’s fuel for the fire to keep it going... There’s no silver bullet for this bundle of problems.”

Sandefur said the MacArthur grant has not only provided a financial boost to her research, but it helps her publicize the problem of civil justice in the U.S.

“It’s a really tremendous opportunity to bring attention to an issue that’s been under the radar for a long time,” she said. “Universities are the only place where this kind of research will happen. It’s not research that creates something you can sell, and it’s wonderful that universities are still here producing this kind of work.” ■

GENIUS AT WORK

In addition to her research, Rebecca Sandefur teaches several courses, including social stratification and inequality, law and society, introduction to sociology, classical sociological theory, and access to justice.

By Heather Schlitz



New Career fair opens doors for LAS students

STUDENTS FROM ALMOST 50 MAJORS ATTEND FIRST-OF-ITS-KIND EVENT



(Photos by Jesse Wallace.)

Organizers of the ACES + LAS CAREER FAIR at Illinois,

held in the fall, wanted to try something new: An LAS career fair devoted to connecting students in the liberal arts and sciences with potential employers. The result? It brought together more LAS students and companies than any other campus career fair in recent years.

Almost 750 LAS students from 47 majors attended the fair, which was also attended by representatives from more than 130 companies. The fair was also attended by students in the College of Agricultural, Consumer, and Environmental Sciences (ACES), which collaborated with LAS to host the fair at the Activities and Recreation Center.

Attendance by LAS students at the ACES + LAS Career Fair was larger than the total number of LAS students who attended campus career fairs in all of 2017 (in the past, LAS students have attended campus career fairs, but not one publicized as being related to LAS). The number of employers was also larger than at similar events in the past; for example, 34 more employers attended the ACES + LAS Career Fair than the 2017 ACES & Sciences Career Fair.

Brian Neighbors, director of career development in LAS Student Academic Affairs and a chief organizer for the event along with Patricia Simpson, director of career services in the School of Chemical Sciences, said the fair was initiated in part by LAS students, who have requested for some time that the college have its own career fair. While one goal of the fair was to create job opportunities and generate interviews for students, another was learning and development-related—that is, providing students the experience of preparing for and meeting potential employers.

“One of the key factors we want to work on with students is experiential learning and gaining experience outside of the classroom that help them complement their learning,” Neighbors said. ■

WATCH A VIDEO about the event at go.las.illinois.edu/careerfairvideo18.

By Heather Schlitz

Tracing a sacred narrative in Nepal

Professor's new book is the first critical study of the Svasthanivrataskatha



A professor of religion has published the first critical study of one of Nepal's most cherished narrative traditions.

Jessica Vantine Birkenholtz's book, “Reciting the Goddess: Narratives

of Place and the Making of Hinduism in Nepal,” (Oxford University Press) focuses on the history and development of the “Svasthanivrataskatha” (SVK), which is a Hindu devotional tradition dedicated to the local Nepalese goddess Svasthani. The 31-chapter book dates to the 16th century, when it was but a few handwritten folios in length.

Nepalese Hindus annually recite the SVK over the course of the winter month of Magh (mid-January to mid-December). Families pass down copies of their handwritten SVK texts from generation to generation.

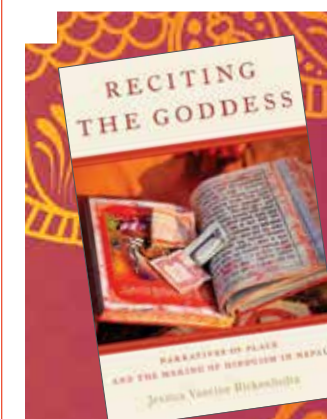
“Nepalis always say that you can find the SVK in every Hindu house in Nepal,” Birkenholtz said. “I was really surprised and fascinated to see that so many of the people that I met in the village I was working in had these old handwritten texts.”

Birkenholtz presents a history of the development of the SVK from the 16th century to the early 20th century. She argues that the SVK's textual development serves as a lens to observe the making of modern Hinduism in the Himalayas and, specifically, the construction of Nepali Hindu identity vis-à-vis Indian Hindu identity. She also examines the role of women in the SVK, and how it has fueled modern debates on Hindu womanhood.

Birkenholtz's project required extensive research at the National Archives and other small archival collections in Kathmandu, where she examined approximately 125 SVK manuscripts from the 16th century to the present. These manuscripts are written in Newar (a local ethnic language), Nepali, and Sanskrit.

Over the last 15 years, she also interviewed many Nepalis of various ages, locales, and degrees of devotion. Her pairing of textual-archival and contemporary ethnographic research methods and materials is a distinguishing characteristic of the book. ■

By Jessica Bursztynsky



Birkenholtz's book combines research methods to examine a Nepalese narrative tradition dating back some 500 years. (Oxford University Press.)



THE LEGACY OF A PIONEER

The late **Maudelle Tanner Brown Bousfield** led a life of firsts—and remains an influence even today



Almost 50 years after her death, **Maudelle Tanner Brown Bousfield**, the first African-American female student at Illinois, is known as a pioneer. During her lifetime, she learned that the title did not come easily. In 1926, Bousfield (AB, '06, mathematics and astronomy) was working at Wendell Phillips High School as the first black teacher to be permanently assigned a teaching position at a Chicago high school. She quickly earned the respect of her colleagues, and the principal asked her to be dean of girls.

The board of education, however, didn't want Bousfield to fill the position, so they required that she take an examination to qualify. The catch? Five years of teaching experience was required to take the exam, and Bousfield had only four.

Undeterred, Bousfield asked if she'd be eligible for the position if she passed the principal's examination, which required only four years. The board said yes, but they didn't believe she would succeed.

"They laughed in my face when I told them I'd take that exam," Bousfield recalled, according to an historical account by Illinois alumna Dionne Danna (PhD, '01, educational policy), now a professor at Indiana University. As of that time, only eight African-Americans had taken the principal's exam, and none had passed. Bousfield, however, scored among the top 20 out of 600 people who took the exam. In 1927, she became the first African-American dean in Chicago schools.

In 1939, she would become principal at Wendell Phillips, and her influence there as principal was cited later, in 2003, when the school was named a Chicago Landmark for its important role in the lives of African-Americans in the city.

Bousfield was born as Maudelle Brown on June 1, 1885, to Charles H. Brown and Arrena Isabella Brown in St. Louis. As a teenager, Bousfield was a musical prodigy, and became the first African-American student to attend the Charles Kunkel Conservatory of Music in St. Louis.

In 1903, Bousfield enrolled at Illinois, where she was determined to succeed despite the uncertainty of being the first African-American woman to attend the school. She soon answered those doubts, excelling in her classes and paying for tuition by tutoring other students in mathematics and playing piano at sorority dances. Bousfield earned her bachelor's degree in three years and graduated with honors.

She moved to East Saint Louis, Illinois, to teach high school mathematics, and the job would lead to other teaching positions in Baltimore and eventually Chicago. After being named the dean of girls at Wendell Phillips in Chicago, Bousfield earned her master's degree at the University of Chicago, where she was particularly interested in studying the ability and achievement of black children. For her master's thesis, Bousfield tested more than 250 students between fifth grade and eighth grade. She found that while most black children in her study fell below the average scores in reading and arithmetic, refined teaching techniques could enhance their scores.

Indeed, Bousfield fought tirelessly for her students. According to accounts, in 1931, on her very first day as principal of Douglas Elementary School in Chicago, Bousfield noticed that a white

teacher was not paying attention to her students. She was letting her students run wild in the classroom. Bousfield had the teacher removed from the school system.

Bousfield expressed strong feelings on the notion of "separate but equal" education, claiming that the school system inherently administered racially biased exams designed to lessen the achievement level of young black students. Bousfield made it a goal to improve the performance of black students in standardized testing.

She also argued that poverty and other environmental factors had adverse effects on test scores for black students and put them at an early disadvantage. This is not to say that she deflected responsibility for her students; Bousfield is remembered for demanding excellence and hard work from her students, who came from some of the city's toughest districts.

Wilford Bonner, a 1945 graduate of Wendell Phillips, told the Chicago Tribune for a story about the school that Bousfield, who stood about 5 and a half feet tall and wore thin-rimmed glasses, didn't tolerate misbehavior.

"She was a quiet dictator," he said.

"When you walked into the school when she was principal, you knew (there was) serious business going on up in here," Sisi Mosby, a 1949 graduate, told the paper.

Bousfield was also a strong advocate for females, and she came to be regarded as a role model for African American women who

wanted to work in public education. In November 1928, Bousfield highlighted many of the things she was thankful for in a piece she wrote for the Chicago Defender titled "Thanksgiving Expressions."

"I am furthermore thankful that out of my work grows that satisfaction of having been some small service to someone else," Bousfield said. "I am glad to be a woman and to enjoy the freedom and emancipation that womankind is winning."

From 1929-1931, Bousfield served as the national president of the Alpha Kappa Alpha sorority, the first African-American women's sorority in the United States.

In 1965, she became an honorary member of Phi Beta Kappa, a prestigious academic honor society at the University of Illinois. She was honored for her outstanding work when she was a student and in her subsequent career. In retirement, Bousfield enjoyed spending time with her two grandchildren and spent her spare time collecting early American glass and gardening. She was even once recognized by the Chicago Gardening Club.

Bousfield died on Oct. 14, 1971 in Chicago, at age 86.

In the fall of 2013, the University of Illinois opened a residence hall, Bousfield Hall, named in her honor. Members of her family and descendants of hers were present at the opening ceremony. Meanwhile, her portrait still hangs on the wall at Wendell Phillips Academy High School in Chicago.

"Everyone has some gift, some one thing he can do better than anything else, whether it is teaching, dancing, dramatics, cooking, or some other skill," Bousfield once said. "Find that one thing and give of it to humanity if you want a well-rounded happy life." ■

By Abigail Paeth and Dave Evensen



(Photo courtesy of University of Illinois Archives.)

LOOKING MORE DEEPLY AT THE NUMBERS

LAS is the largest college at Illinois. Here's a deeper look at the numbers that tell the story:

Undergraduate enrollment (Fall 2018):

12,035

Including...

2,116 freshmen, 2,578 sophomores, 3,393 juniors, 3,799 seniors, and 149 nondegree/second bachelor

Number of faculty:

859

Including...

623 tenure system faculty and 236 specialized faculty

Number of majors:

70

Largest major (enrollment):

Psychology, with 1,616 primary and second majors

Number of undergrads who double major:

823

Most popular double-majors include economics and statistics (79 students), mathematics and statistics (51), and molecular and cellular biology and psychology and actuarial science and statistics (39 students each).

Number of buildings with an LAS unit:

53

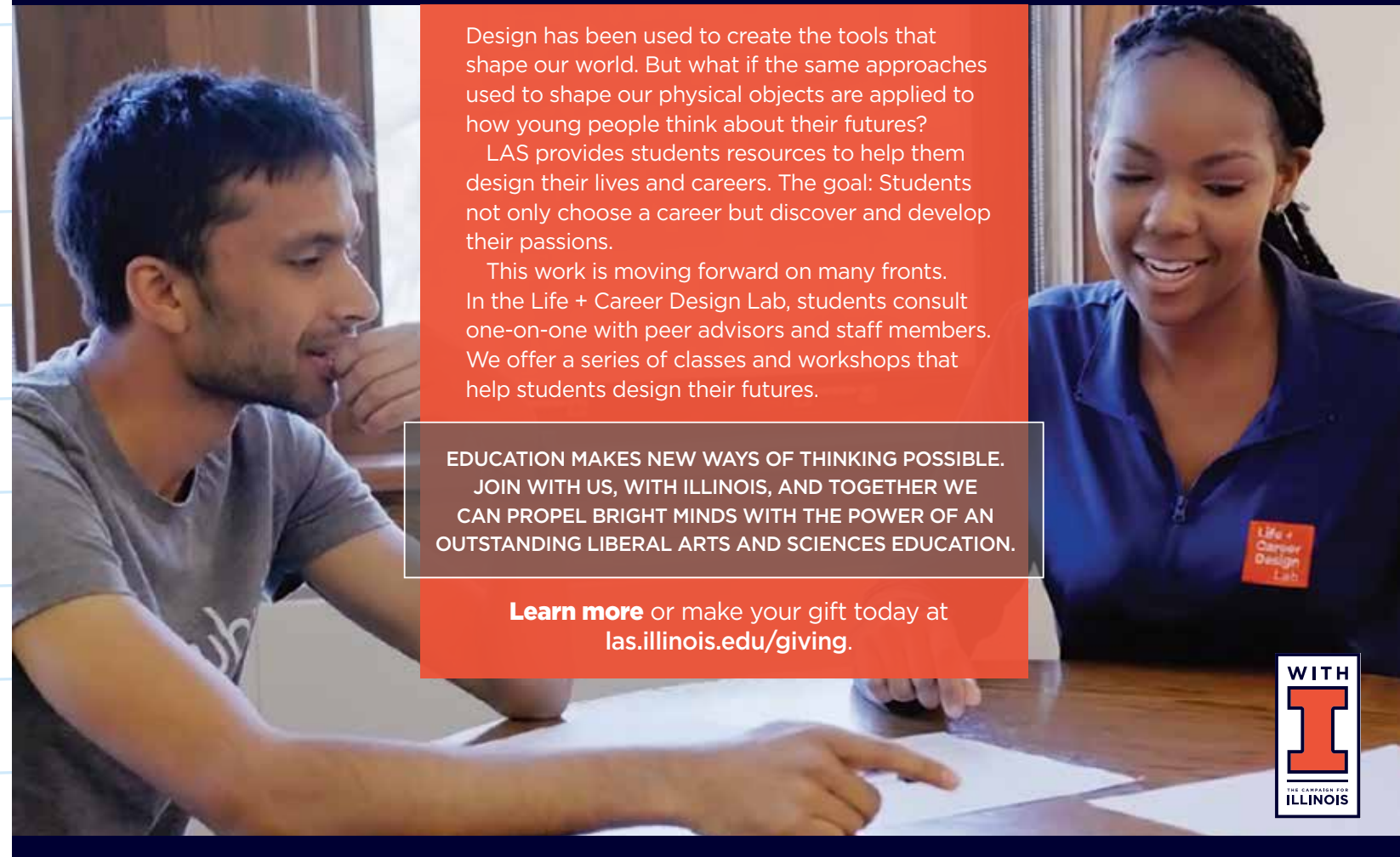
Number of students who **visit Lincoln Hall** per day*

Monday: 6,691	Thursday: 5,872
Tuesday: 6,207	Friday: 4,675
Wednesday: 8,015	

*Numbers reflect student visits. Some students may visit Lincoln Hall more than once per day.

Sources: Applied Technologies for Learning in the Arts & Sciences (ATLAS) Reporting Services and Derek Fultz, director of facilities for the College of LAS.

YOUR GIFT MAKES (RE)THINKING POSSIBLE



Design has been used to create the tools that shape our world. But what if the same approaches used to shape our physical objects are applied to how young people think about their futures?

LAS provides students resources to help them design their lives and careers. The goal: Students not only choose a career but discover and develop their passions.

This work is moving forward on many fronts. In the Life + Career Design Lab, students consult one-on-one with peer advisors and staff members. We offer a series of classes and workshops that help students design their futures.

EDUCATION MAKES NEW WAYS OF THINKING POSSIBLE. JOIN WITH US, WITH ILLINOIS, AND TOGETHER WE CAN PROPEL BRIGHT MINDS WITH THE POWER OF AN OUTSTANDING LIBERAL ARTS AND SCIENCES EDUCATION.

Learn more or make your gift today at las.illinois.edu/giving.



FALL 2019 UPCOMING EVENTS

REUNITE WITH FRIENDS AND CLASSMATES, learn more about LAS programs and initiatives, and make new connections at these upcoming alumni events!

Exploring the Arctic Expedition

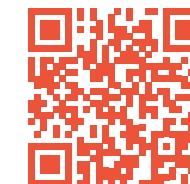
6 p.m. Saturday, May 4
Spurlock Museum, Urbana

Homecoming 2019

The week of Sunday, Oct. 13, through Saturday, Oct. 19
Illinois campus

For more event information

and registration, please visit las.illinois.edu/alumni/events, use your phone's camera or QR app to scan the code on the right, email us at las-alum@illinois.edu, or call (217) 333-7108.



Also be sure to hear about future events in your area by updating your email address at go.las.illinois.edu/alumnicontact-spring19.

ENGAGE AND CELEBRATE ALUMNI

The **LAS ALUMNI ASSOCIATION** is critical to connecting alumni with the College of LAS. Consider applying for the board of directors, or nominate an inspiring individual for an alumni award (this year's nomination deadline is May 1). go.las.illinois.edu/alumni-volunteer19

NEW ADDRESS? Update your mail or email address at go.las.illinois.edu/alumnicontract-spring19.

LEARN FROM LAS ALUMNI



The LAS alumni community is 168,000 strong and filled with successful professionals in virtually every field. Check out the college's series of short videos where alumni share ideas about how to succeed in your career.

Pictured here: **Erika Jones (BA, '96, humanities)**, a senior human resources representative at United Airlines, shares advice on working with your boss.

Use your phone's camera or QR app to scan this code and watch the video.



>> LAS.ILLINOIS.EDU/ALUMNI/EXPERTS