



We've been built this way from the beginning—to serve the state and its people, and bring the whole world right along with us. Our past and future are tied together through immeasurable impact, made matter-of-factly. The world is a better place **With Illinois**.

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on the success of the campaign and achieving the "impossible."



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WITH ILLINOIS CAMPAIGN Learn more about our campaign priorities and the transformative impact of giving.



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#### DORIS KELLEY CHRISTOPHER

The University of Illinois alumna is supporting the creation of a new home for University of Illinois Extension.

#### CREATIVE ENDEAVORS

This sampling of gifts will help elevate and sustain the study of the arts for generations to come.



CAM

#### HOME IS WHERE THE ROBOT IS

Illinois faculty use the McKechnie Family LIFE Home to define the future of independent living for all ages and abilities.

#### CARLE ILLINOIS COLLEGE OF MEDICINE

The world's first engineering-based medical school graduated its inaugural class in May 2022.

### FAMINE FIGHTERS

From the lab to the field, Illinois crop scientists are engineering a new solution to world hunger.

#### WHERE WEARES

From the ground up, new buildings and spaces are changing and enhancing how we experience campus.

#### GIFTS IN BRIEF

The success of the With Illinois Campaign was built with gifts of all sizes to every part of our campus.



#### ILLINOIS AT ITS BEST

We are grateful to our donors, who have been important partners in helping us face the COVID-19 pandemic head on.

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## WITH YOU, WITH ILLINOIS, I KNOW WE WILL Achieve our goal and together, We will change the world."

CHANCELLOR ROBERT J. JONES AT THE WITH ILLINOIS CAMPAIGN PUBLIC LAUNCH, OCTOBER 13, 2017.

#### "THAT'S IMPOSSIBLE."

We hear those two words with regularity in our daily lives and throughout our society.

But here at Illinois, in the 155 years since the founding of our university, those words have never signaled the end of the conversation or limited the horizons of imagination.

They have been just the opposite. Time and again, they have been taken as a challenge that led to leaps forward in knowledge, understanding, and societal impact.

I will tell you that I heard those same words more than once in 2017 after we publicly launched our With Illinois Campaign with the goal of \$2.25 billion in philanthropic support. The audacity of our university to set out a goal of that magnitude was unthinkable, unbelievable, and simply impossible.

In some ways, I guess you can say the skeptics got it partially right. We didn't meet our \$2.25 billion goal in five years. We *exceeded* it. In *just four years*. During the worst global health crisis in living memory.

Officially, the With Illinois Campaign raised approximately \$2.7 billion. That number is impressive.

But what truly matters is how the generosity and the confidence of thousands of alumni, friends, and corporate partners will translate into new opportunities for generations of students to come, new discoveries and ideas that will transform our collective future, and the foundation for the next century of "impossible" achievements that will come from the University of Illinois Urbana-Champaign.

Thank you to all of you who came together to make our With Illinois Campaign the most successful philanthropic achievement in our history.

Sincerely,

Robert J. Jones Chancellor, University of Illinois Urbana-Champaign





## I M PACT W M T H

At the launch of the With Illinois Campaign, we had an ambitious \$2.25 billion goal a vision of a campus transformed. We exceeded that goal, and as we look back on your generosity, we are truly humbled



171,000+ DONORS

FROM ALL 50 STATES

AND 76 COUNTRIES

WORLDWIDE





UNRESTRICTED DOLLARS RAISED, PROVIDING FLEXIBILITY TO MEET ILLINOIS' PRIORITIES



ADDED TO THE CAMPUS FOOTPRINT THROUGH NEW BUILDINGS AND SPACES

THE FIRST CAMPUS BUILDING TO BE FUNDED ENTIRELY BY PRIVATE DONATIONS is the Tina Weedon Smith Memorial Building, known colloquially as Smith Hall. Civil War Captain Thomas J. Smith funded the building to honor his late wife. He laid the cornerstone of the building himself in a ceremony in 1917 and declared it the "happiest moment of my life."

## STARTS YOU

by the strength of your support. With you, we give the next generation the skills and knowledge to make sense of the world around us, preserve the lessons of the past, and move humanity forward.



**891,000+ GIFTS** IN SUPPORT OF YOUR PASSIONS



59,000+ FIRST-TIME Donors

BEGAN THEIR PHILANTHROPIC JOURNEY WITH ILLINOIS





SHOWCASING THE COLLECTIVE POWER OF THE ILLINI FAMILY



2,750+ NEW FUNDS SUPPORTING SCHOLARSHIPS, FELLOWSHIPS, AND FACULTY

POSITIONS

**THE DIANA FOUNTAIN,** found in the west courtyard of the Illini Union, was originally installed in Chicago's Time-Life Building in 1928. The fountain resided there for forty years until the building was slated to be demolished. The Class of 1921 partnered with Time Incorporated to raise funds and bring the fountain to campus in honor of its fiftieth reunion in 1971.

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## PROPELLING BRIGHT MINDS

WHEN THE WORLD NEEDS US, WE WILL BE

**THERE.** It has been this way since the beginning. We showed up when the streets of Chicago were still smoldering after the Great Fire in 1871. We showed up when NASA was working to land on the moon. We've broken glass ceilings and reported from war zones. Our art has challenged people to think, and our courage to persist has led us closer and closer to solving world hunger and successfully fighting cancer.

But we can't—and don't—do this alone. We do this with you. Donor support of scholarship funds, named faculty positions, and department chairs enriches the educational experience and attracts the most promising scholars to our university. These gifts open doors to a culture of excellence from which these brilliant minds challenge, collaborate, create, question, test, test again, rewrite, and, most of all, wonder. There are no boundaries to what is possible at Illinois. And when these scholars leave Illinois, they bring that sense of possibility with them wherever they go.

When you invest in Illinois, you invest in our collective future. The power to impact the world is within each of us, and your gifts empower us all.



Inés Nava (LAS '17) received both the Illinois Promise and President's Award Program scholarships at Illinois. She's gone on to earn a master's degree from Northwestern University, volunteer extensively in her community, and build a successful career in marketing.



**ILLINOIS RESEARCHERS ARE NOT AFRAID** to break academic boundaries, think outside the box, or try something new. In the pursuit of a healthier, safer, and more productive world, every idea is on the table.

When we gathered to celebrate the launch of the With Illinois Campaign in October 2017, nobody could have predicted what the next years would bring. A global pandemic. A painfully divided country. Historic wildfires and hurricanes.

But we proved we are resilient and that in a time of crisis we come together to find solutions.

At the onset of the pandemic, our scientists pivoted quickly and pooled their expertise in chemistry, engineering, medicine, and design thinking to develop a portable respirator, as well as SHIELD, the saliva-based testing protocol that became a model for communities around the world. When people took to the streets in search of change, Chancellor Robert J. Jones provided substantial funding for faculty to launch new research programs into issues of diversity and inclusion. For all the challenges facing us today, there are people on campus working to find solutions.

It takes courage, dedication, and compassion to change the world. It takes Illinois.



This micro-scale image of coal ash was taken by Hongxu Zhou, a graduate student in agricultural and biological engineering, who is studying how to excavate the full potential of remnant ash, including its ability to remove dissolved phosphorus from agricultural runoff.

2 CAMPAIGN PRIORITY

## FINDING SOLUTIONS TO THE WORLD'S CHALLENGES

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## A UNIVERSITY AT THE HEART OF ILLINOIS

**A DEEPLY FELT ENERGY** sustains these 9.9 square miles of fertile land ripe for endless discovery, innovation, and continuous excellence.

Twenty students comprised the first graduating class of what was then called the Illinois Industrial University. Over the last century and a half, those twenty were joined by hundreds of thousands of Illini, each one contributing to our character and spirit.

Our students, our faculty—even the buildings that define our campus—are at the core of what makes Illinois special.

We feel alive when cheering on the Fighting Illini or posing with Alma Mater, researching in the fields or digging deep in the library stacks. Students come to campus from nearly every county in the state. After graduation, they bring their expertise in business, health care, education, and technology back to communities across Illinois. Together, we've made this university a dynamic hub of economic and intellectual activity in the state of Illinois.

While the experience is different for every person who passes through our campus, the ethos of Illinois endures. The passion and the curiosity. The courage and ambition. The knowledge that the heart of Illinois lives within each of us.





During this campaign, donors generously supported student-athletes as well as capital projects such as the Feed Technology Center (right, above) and the Siebel Center for Design (right, below).



**AT ILLINOIS, WE PRIDE OURSELVES ON FOSTERING AN ACADEMIC ATMOSPHERE** that is unafraid to pursue what may seem impossible. Our scholars collaborate across disciplines, and our undergraduates are welcomed into labs. It is important that we come together with open minds if we are going to fully engage with our future and fully understand our past.

During this campaign, donor support of unrestricted funds, such as a college's annual fund or the Chancellor's Fund, has allowed us to pivot and provide flexible financial support quickly, as when our faculty came together to develop an emergency ventilator during the early days of the pandemic.

These gifts give us the ability to be nimble and respond to pressing needs so we can preserve our ambitious culture and continue to feed that exceptional energy.

Next time you visit campus, don't be surprised if you sit next to a Nobel Prize winner on the bus, or stand in line for lunch behind a MacArthur Fellow, or walk past a student on the Quad who will, one day, write the Great American Novel or discover the compound that revolutionizes cancer care.

Anything is possible, With Illinois.



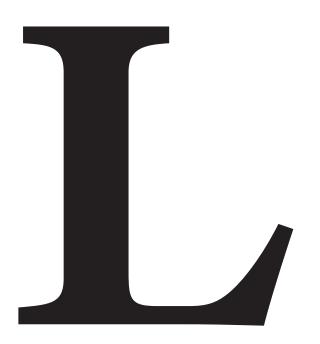
The Morrow Plots (right) bring us back to our very beginnings. Planted in 1876, it is the oldest experimental agricultural field in the nation and is listed as a historic landmark. Professor Cynthia Oliver (above, left) received a Doris Duke Award (2021), a United States Artists Fellowship (2021), and a Guggenheim Fellowship (2022) recognizing her accomplishments in dance. *Photo of Cynthia Oliver by LaTosha Pointer*.

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## A UNIVERSITY OF DISTINCTION





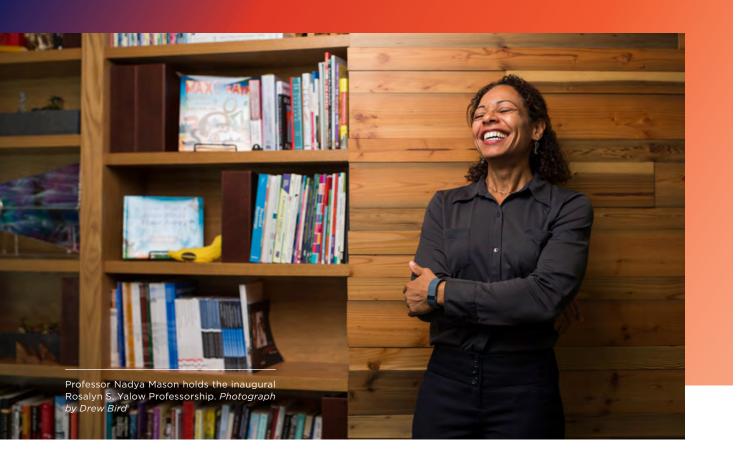


THE GRAINGER COLLEGE OF ENGINEERING HONORS THE LEGACY OF NOBEL LAUREATE **ROSALYN YALOW** (GRAINGER '45) WHILE SUPPORTING THE NOTEWORTHY WORK OF PHYSICS

WRITTEN BY ABIGAIL BOBROWAdditional reporting by Kimberly Belser

PROFESSOR NADYA MASON.





**IN SEPTEMBER OF 1941**, Bronx native Rosalyn Sussman, later Yalow, swapped skyscrapers for cornfields when she arrived at the University of Illinois to embark on her PhD in nuclear physics, as well as a teaching assistantship. At the time, she was the only woman among four hundred male faculty and teaching assistants in the College of Engineering.

Despite having graduated from Hunter College with high honors, this prodigious twenty-year-old had met her share of resistance when applying to graduate school—until Illinois said yes.

Yalow persevered with single-minded determination. She believed in hard work—and she believed in herself.

Eighty years later, physics professor Nadya Mason, who came to Illinois in 2005, can relate.

"As a physicist of color, I can identify with that feeling of being isolated; of being noticed in every room that you go into; of having to pursue your interests, whether or not other people think you belong. That is a definite connection that I feel with Dr. Yalow," Mason said.

While decades separate the careers of these two accomplished physicists, they have reputations as passionate, ambitious, and outstanding scientists.

In 2021, Yalow's legacy crossed paths with Mason's career. Thanks to funding from the Heising-Simons Foundation, Yalow was honored as a pioneer for women in STEM with a named professorship—the first in the college's history to be named in honor of a female alumna. Nadya Mason proudly holds the inaugural Yalow Professorship. "Nobody wanted a Jewish woman from New York in their graduate program. And then, how on earth would she ever get a job?" Ben Yalow shared in a recent conversation about his Nobel Laureate mother.

Yalow was told by many that she wouldn't be accepted to graduate school and was, in fact, working as a secretary when she received her acceptance from Illinois.

It was here that she met some of her fiercest professional and personal champions, including her PhD adviser Maurice Goldhaber and Aaron Yalow (GRAINGER '45), a fellow physics graduate student who would become her husband. Upon graduation in 1945, she was only the second woman to receive a PhD in physics in the university's history.

In the 1950s, Yalow worked at the Veterans Administration Hospital in the Bronx, where she partnered with physicianscientist Solomon A. Berson. Their work led to the discovery of radioimmunoassay (RIA), a technique that measures unknown substances by reacting them with antibodies labeled with radioactivity. RIA enables doctors to provide quicker diagnoses, safer blood transfusions, and easier detection of gestational complications during pregnancy.

For this discovery, she became the first American-trained woman to earn the Nobel Prize in Physiology or Medicine. Sadly, Berson passed away in 1972 and couldn't share the 1977 prize. In honor of their work together, Yalow named her lab after Berson, noting that she wanted every paper, every discovery that came out of that lab to have his name on it as well as hers.



Mason, an alumna of Stanford and Harvard, is an awardwinning experimental physicist. She is the founding director of the Illinois Materials Research Science and Engineering Center, and her work focuses on electronic behavior in nanoscale materials, an understanding of which is critical to developing new electronic devices. Throughout her career, she has also worked to increase the presence of underrepresented groups in STEM.

"Receiving this professorship is wonderful recognition that all of my work is valuable, both the research and the outreach work that I do," Mason said. "It motivates me to push forward on all aspects of my work, from leading a center to working with my students to organizing webinars about inclusivity."

She admits she was unfamiliar with Yalow and her work before starting at Illinois. While that could be because they are in different areas of physics, she also suspects it could be because women are not as readily lauded for their achievements.

"I am often asked to speak, and now I am introduced as the Rosalyn Yalow Professor," Mason explained. "Using her name is important. Hopefully, this will be a start to giving Rosalyn Yalow the recognition she really deserves."

Yalow's daughter, Elanna, is especially grateful for how much this professorship means to her mother's memory.

"For all the honors that have been bestowed on my mom, this named professorship has a special place," Elanna said. "Not only is it a recognition of the work that she has done but an opportunity to inspire future generations."  $\bullet$ 

Rosalyn Yalow (above) in her lab. Photo courtesy of U.S. Information Agency. Rosalyn and Aaron (below) pictured at Illinois. Photo courtesy of Ben Yalow







## LARRY & BETH GIES

Named the Gies College of Business

**LARRY (GIES '88) AND BETH (ACES '89) GIES' GENEROUS \$150 MILLION GIFT** to create access and opportunity was the largest single gift in the university's history.

They hoped to create both an immediate and lasting impact for current and future students, and that's exactly what has happened. This transformative gift allowed for critical investments in online education and innovative student programming; fortified support for faculty hiring and research; and dramatically increased student support.

Dean Jeffrey R. Brown describes a morale change that happened almost overnight. "The naming generated so much enthusiasm and excitement among the current students, and that has been a gift in and of itself," he said.

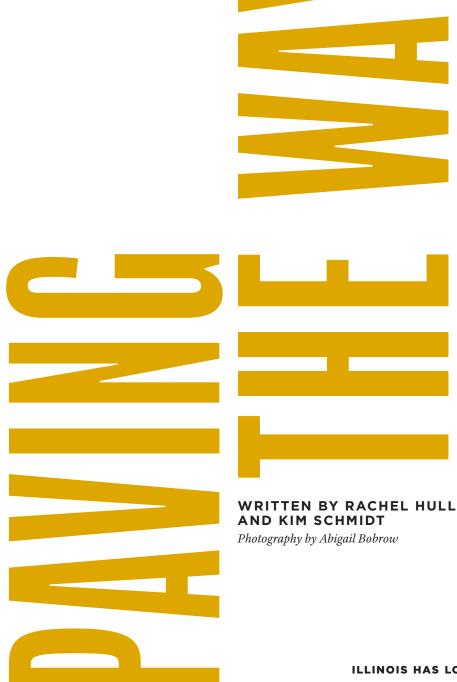
With their investment, Larry and Beth Gies aim to open doors and provide space for diverse voices and experiences—democratizing education while building the future of business.

"There is an energy on campus now that I've never seen. We have an energized group of future leaders who realize that how they change the world and who they touch along the way is going to define their school," said Larry Gies. "All we've done is give them the ability to make that happen."

Larry Gies is the founder and CEO of Madison Industries, a privately held international manufacturing firm. Madison is based in Chicago, Illinois, and it builds entrepreneurially driven, branded market leaders that are dedicated to making the world safer, healthier and more productive through innovations in filtration, medical, indoor air quality, process improvement, and safety.

Beth Gies, an educator, tutors and leads the family's efforts to invest in education.

"The University of Illinois was my launching pad," Larry Gies said. "I have two missions in life. One is to make the world safer, heathier and more productive. The other is to democratize education. My time on campus was very influential to both of those missions."



**ILLINOIS HAS LONG ATTRACTED SMART, STRONG, AND ACCOMPLISHED STUDENTS.** They are leaders when they arrive on campus, and, upon graduation, they continue to be leaders in their chosen professions and communities.

Student support plays a vital role in making sure the brightest students are able to come to Illinois. During the With Illinois Campaign, generous donors established new funds to support the next generation of artists and engineers, journalists and doctors. These are the very people who will discover, inspire, and invent their way to a better future for us all.

Each of these students has a long road of accomplishments ahead—as well as a community of family, professors, and donors who helped pave the way. We can't wait to see what they do next.

#### RYAN LAKE CIVIL & ENVIRONMENTAL ENGINEERING, 2022

Ryan's Illinois experience has taken him around the world as a civil engineer and a musician. He has participated in Engineers Without Borders, served as a project lead developing a clean drinking water distribution system in Ecuador, performed clarinet in the 2019 Redbox Bowl, and marched in a parade in Dublin, Ireland, with the Marching Illini. After completing his bachelor's degree, he will work as a transportation engineering consultant in Chicago and pursue his master's degree in civil engineering online through Illinois.

#### **Engineering Visionary Scholarship**



#### ZOE BRIDGES SOCIAL WORK, 2023

A transfer student with a background in music therapy, Zoe found her niche in the School of Social Work. She is passionate about empowering marginalized communities, and volunteers with orphanages, safe houses for abused women, tutoring programs for at-risk youth, homeless shelters, and crisis nurseries. Her eventual goal is to open a safe house for survivors of human trafficking and sexual exploitation.

Adam W. Johnson Memorial Scholarship Legacy Scholarship Phi Sigma Delta Scholarship

#### MACKENZIE WELLS (ACES '20) DOCTORATE OF VETERINARY MEDICINE 2024

Mackenzie Wells is a third-generation Illini who grew up helping in her parents' veterinary practice. But it was the Wildlife Medical Clinic (WMC) at the College of Veterinary Medicine that won her over to Illinois. Mackenzie has now volunteered with WMC for five years, serving on the student executive board and the ambassador care and treatment teams. Postgraduation, she plans to become a general practitioner in Illinois and hopes to also provide needed care for nontraditional animals in her community.

Jonathan Baldwin Turner Scholarship Jackson & Roos Scholarship Paul E Woodson Scholarship N & D Waffle Scholarship M. Scott Agribusiness Scholarship Davis & Crocker Scholarship





#### TERENCE NJEKEU INFORMATION SCIENCES, 2022

Terence, who is originally from Cameroon, came to Illinois to study information sciences after completing his first two years at Parkland College. With the added difficulties of the pandemic, a scholarship made Terence's transfer to Illinois possible. He is focused on exploring how accurate data analysis can make technology more user friendly in the business world. After graduation, he plans to work as a data scientist for Discover Financial Services in Chicago.

LIS Department Scholarship

#### EVAN DRAY CHEMISTRY, MOLECULAR & CELLULAR BIOLOGY, 2022

When he was a freshman, Evan knocked on his professors' doors looking for research opportunities and ended up building an impressive research portfolio with Illinois neuroscience professor Daniel McKim. Newly graduated, Evan will pursue his MD/ PhD in cancer biology, hoping to become a practicing physician-scientist in pediatric neuro-oncology. "I see myself taking care of patients in the clinic, while at the same time directing a research laboratory exploring the basic science of pediatric brain tumors," he said.

TechnipFMC Educational Fund James Scholar Preble Research Scholarship





#### AVREY STEINER ACCOUNTING, 2022

Avrey, known for her determination, high softball IQ, and impressive batting average, has shone as a stand-out softball player for Illinois and in the Big Ten overall. Avrey feels blessed to have been at a school known both for rigorous academics and a Division I athletics program. After graduation, Avrey plans to get a master's degree in management through the Gies College of Business and then to eventually pursue a career in coaching, giving back to college athletes such as herself.

I-FUND

#### EDGAR MEJIA (GRAINGER '18) MATERIAL SCIENCES AND ENGINEERING, PHD 2026

Born in Ohio and raised in Mexico, Edgar Mejia has a singular focus at Illinois: figure out a way to recycle the impossible—those hard plastics defying some of our best efforts. His work hasn't gone unnoticed. He was chosen to present his research as a Fulbright Scholar at the United Nation's Summer of Solutions conference on climate change. While just a secondyear PhD student, he has long-term goals to develop plastics that can be chemically recycled and used for 3D printing manufacturing.

Engineering Visionary Scholarship Sargent and Lundy Endowment





#### GILLIAN BOWMAN SPEECH & HEARING SCIENCE, 2023

Gillian comes from a small town in Central Illinois, and the Urbana-Champaign campus has provided her with the perfect opportunity to be close to home and still get to know people from all over the world with different backgrounds, majors, and perspectives. Illinois has fostered Gillian's passion for helping others and leadership skills through organizations like the National Student Speech Language Hearing Association and the Student Alumni Ambassadors. She plans to go on to graduate school to become a speech-language pathologist.

Doris Strickland-Collins and Edward W. Collins Award

#### FRANCKY MAEMBLE INTEGRATIVE BIOLOGY, 2025

Francky Maemble has always wanted to become a doctor. When she immigrated to the U.S. as a child from Cameroon, the disparity in health care between the two countries was impossible to ignore. At Illinois, Maemble found a community of inspiring faculty and scholars she feels are helping her flourish. She describes herself as a calm person who does well under stress, an ideal disposition suited to achieving her dream career as an emergency medicine physician.

#### **Illinois Promise**





#### MERCY RATTS ELEMENTARY EDUCATION, 2024

Mercy loved the idea of coming to Illinois but didn't think it would be possible until she found out she would be an Illinois Promise Scholar. Mercy is making the most of her time at Illinois, working closely with her I-Promise mentor, and serving as a student leader in a campus ministry and a student dance team. Her goal is to impact her future students the way her teachers inspired her, and provide a safe, fun environment for all.

**Illinois Promise** 



# THE ATTITUDE OF CRATITUDE

## Barry L. Houser (FAA '09), director of the Marching Illini, answers the Proust Questionnaire.

#### INTERVIEWED BY ABIGAIL BOBROW

Photo courtesy of Bradley Leeb/MarchingIlliniPhotos.com

**AMONG THE DOZENS OF TWEETS** on Barry Houser's Twitter account, one stands out. "Look at that shine," he posted next to two photos of gleaming linoleum floors in the Harding Band Building. This shout-out to work done by the Facilities & Services staff is not a one-off. Scroll through his feed, and most—if not all—of them are in recognition or praise of someone.

Houser chalks it up to his modest upbringing in North Liberty, Indiana, a town of a little more than a thousand near South Bend. His parents impressed upon him and his younger brother and sister the importance of respecting others and having a solid work ethic.

He returns to those fundamentals every day as the director of the Marching Illini. He knows every member's name, as in the hundreds of students who play, twirl, and manage one of the oldest college marching bands in the country.

Houser hails from a family that wasn't particularly musical, yet there was always singing around the house and, as

Houser got older, he sang at church. When it came time to play an instrument in elementary school, he landed with the trumpet after the percussion spots were already filled. "A lot of people think, well, you must have a really musical family. Well, no, not really," Houser shared in a recent conversation. "But I always loved singing."

Once Houser turned sixteen, he took a job at a road-paving company where his father was the superintendent. Houser spent hot summers hard at work saving money for college so he could pursue musical theater. Ultimately, this firstgeneration college student's dreams of Broadway gave way to a full commitment to band and music education.

Now, at 45, with a wife and two children of his own, it is second nature to make sure to appreciate a job well done. "It goes back to recognizing the people that aren't always in the spotlight or don't always feel valued. It is important to include them in the success of the Marching Illini or the university," he said. "We would not be successful without the people that help run this place."



We wanted to get to know Houser a little better, so we've asked him to answer an abbreviated version of the Proust Questionnaire. Once a popular Victorian parlor game made famous by writer Marcel Proust, the Proust Questionnaire has been used by reporters over the century and across the globe to reveal a side of leaders, artists, actors, and public figures we may not usually see.

#### WHAT IS YOUR IDEA OF PERFECT HAPPINESS?

To use the gifts and talents I have gained throughout my life to improve the lives and experiences of others; helping to create a culture of positivity.

#### WHAT IS YOUR IDEA OF MISERY?

To have said or done something that negatively impacts the lives of others; something that can't be undone or corrected.

#### WHICH TALENT WOULD YOU MOST LIKE TO HAVE?

The ability to play any instrument with great virtuosity.

#### WHAT IS THE QUALITY YOU ADMIRE MOST IN A PERSON?

Moral integrity; it is the foundation for solid and trustworthy relationships in life!

#### WHO ARE YOUR HEROES IN REAL LIFE?

My parents, followed by all of the teachers who have shared their passions with so many.

#### WHO ARE YOUR HEROES THROUGHOUT HISTORY?

Abraham Lincoln, Dr. Martin Luther King Jr., Gandhi, John Williams.

#### WHAT IS YOUR MOST TREASURED POSSESSION?

I am not someone that values material things. The relationships I have with my family, friends, and colleagues are the most treasured "things" in my life—and then—any Apple products.

#### WHAT MOTIVATES YOU?

It is my daily goal to commit to doing the ordinary things in life extraordinarily well! The opportunity to positively impact the lives of others each day, whether through music or any other vehicle. Hopefully we can each leave it a little bit better than how we found it.

#### WHICH WORDS OR PHRASES DO YOU MOST OVERUSE?

There is no better group of people to ask than my students... so I asked them! Here they are in their own words...YIKES!

Again	It's about the Attitude of Gratitude
Along the way	As we look at the scope of things
Curvilinear	And Again
Let's get cookin'!	This is something that we GET to do
In the mix	Take in the Sights and Sounds
GUSH N GO!	Let's do it LOUD and Proud

**WHAT DO YOU CONSIDER YOUR GREATEST ACHIEVEMENT?** My family!

**WHO IS YOUR FAVORITE MUSICIAN? WRITER? ARTIST?** Leonard Bernstein, William Shakespeare, Leonardo da Vinci.

**WHERE IS YOUR FAVORITE SPOT IN THE WORLD?** I have three: Memorial Stadium; a warm, sunny beach; and the country of Ireland.







#### A VIEW FROM ABOVE

Passionate Illinois fans and alumni continue to propel the Marching Illini forward in their success as the nation's premier college marching band. Established in 1868, the band has been directed by Barry Houser since 2011. Currently, the band has 375 members, with student musicians representing every academic discipline on campus.

Alumnus Ronald Filler ('70 LAS) and his wife, Paula, generously made the lead gift for the construction of the Ronald and Paula Filler Marching Illini Instructional Tower in 2017.

The sixty-foot-tall, orange-and-blue tower features a top section in the shape of the iconic Illinois Block I and provides a safe, elevated vantage point for Houser to direct the band during rehearsals.

The Marching Illini started a new tradition in 2019: the annual March Forth crowdfunding campaign to support the Marching Illini Band Fund. Over the past four years, generous donors have joined together every March 4th to provide more than 1,500 gifts totaling over \$190,000, making it the most successful crowdfunding initiative on campus.



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### THE GRAINGER FOUNDATION

Named The Grainger College of Engineering

**IN 2019, ONE HUNDRED YEARS** after William W. Grainger graduated from Illinois, the College of Engineering was renamed The Grainger College of Engineering, recognizing a new \$100 million gift from The Grainger Foundation and more than \$300 million in total support.

The Grainger Foundation's total support represents the largest amount ever given to a public university to name a college of engineering, with more than \$200 million provided over the last several years.

"We couldn't appreciate The Grainger Foundation's trust in us more," said Chancellor Robert J. Jones. "They believe in our powerful vision, and they've invested in it aggressively—supporting people, programs, and facilities. We recently celebrated our first 150 years, and this gift will redefine our next 150."

The Grainger Foundation, an independent, private foundation, was established by Illinois alumnus William W. Grainger, founder of W.W. Grainger Inc., North America's leading broad line supplier of maintenance, repair, and operating products. Today, the foundation is guided by the leadership of Director David W. Grainger, William's son, along with a strong visionary management team.

The momentum from this gift is redefining The Grainger College of Engineering, its student body, its faculty, and the global impact of its research, according to Dean Rashid Bashir.

"Very few colleges have seen this kind of long-term, flexible support. We are proud to be one of them, and it will allow our research enterprise and educational programs to flourish," he said. "It will also allow us to recruit, reward, and retain the very best faculty with more and larger faculty chairs and professorships."

## WE ARE DELIGHTED THAT THIS GIFT WILL FURTHER STRENGTHEN ONE OF THE MOST DISTINGUISHED ENGINEERING SCHOOLS

IN THE WORLD."

"

## RUBY MENDENHALL JOINING FORCES WITH BLACK & LATINX YOUTH

Support from the MacArthur Foundation and others is helping Professor Ruby Mendenhall address healthcare inequity and fuel change in Chicago neighborhoods.

#### WRITTEN BY LAUREN QUINN

A version of this story originally appeared in Smile Politely. Photo by Abigail Bobrow

**GET RUBY MENDENHALL TALKING** about herself, and you'll hear about her gardens, her poetry, and how she sneaks in mother-son time practicing guitar (hers is named Lucille, after B.B. King's) with her son. You'll hear family stories of enslavement alongside tales of today's structural racism, microaggressions, and inequity. But most of all, you'll hear about a woman working with energy and innovation to make life better for people and communities, including our own.

Now the Kathryn Lee Baynes Dallenbauch Professor in Liberal Arts and Sciences and associate dean in the Carle Illinois College of Medicine at Illinois, Mendenhall grew up in Chicago with dreams of becoming a physician (and a poet, but that's another story). Influenced by '80s-era Save The Children commercials, she told her mother she wanted to help malnourished children in Africa.

"I remember my mom kind of looking at me, and she was like, 'You have to go all the way to Africa?' I don't know what that did to me. She didn't tell me not to become a doctor but perhaps implied that the distance was far away," Mendenhall recalls.



Recognizing that helping Chicago's children was also a passion, she went to work as a pediatric occupational therapist. That role started her on her life's path listening to, advocating for, and supporting the power women and children already have, especially in Black and Latinx communities.

"When I was at Cook County Hospital, I was on the protective service team, working with children who were failing to thrive. The mothers, and it was mostly Black and Latinx mothers, were watering down the formula because they couldn't afford it. That's why the babies weren't growing. After hearing that for a while, I was like, this isn't about the mothers. This is about society. Are we going to invest in enough resources so that they can feed their families?"

That's when she changed course, earning a master's degree from the Harris School of Public Policy at the University of Chicago. She started a job with the Ounce of Prevention Fund (now Start Early), working with legislators to develop policies around welfare, childcare, and other family support systems. There, she had another

Mendenhall pulls from diverse disciplines, everything from computer science to genomics, to get at how racism and other factors affect people's lives. "aha" moment.

"I noticed when I was around the policy table with legislators and other policy strategists, I was often the only Black female there, or the only Black person. And I remember thinking, Why aren't the mothers who were having trouble feeding their children at the table? That's what's needed," she said. "That stayed with me."

Mendenhall pursued a doctoral program in human development and social policy at Northwestern University and started as a professor at Illinois in 2006. Her research tackles themes from her early career, including resilience in African American women and families, health and wellness,

housing inequities, public policy, social and economic mobility, stress, and more. She pulls from diverse disciplines, everything from computer science to genomics, to get at how racism and other factors affect people's lives.

In other words, she's an interdisciplinary scholar. A lot of academics do research on similar topics. But Mendenhall's projects seek to leave the individuals and communities she works with better off—even just a little—than they were before.

A recent example: Mendenhall's South Chicago Black Mothers' Resiliency Project. She and her team interviewed almost one hundred single mothers and used genomic tools to learn how the stress of living in neighborhoods with high levels of violence affects their mental and physical health. It took a while to get going, but pretty soon, lines were forming around the block. Women were bursting to share their stories.

"It showed me Black women were interested in talking about their lives, in understanding how stress gets under the skin to affect their health. Around the middle of the study, one of the women waited while we finished up interviews. She said,





'I just want to thank you for coming to see what we're going through, and for asking us how we can work together to solve it.' And then she says, 'The little things matter, and people don't understand that.'"

Mendenhall says big interview projects fundamentally change who she is and how she looks at life. She particularly values stories from the women who share their lives, including their learned ways of coping and flourishing. In her view, policy makers need to hear and understand these stories if they are to democratize healthcare and education.

#### **EMPOWERING COMMUNITIES**

Democratization is in her job title, as associate dean for diversity and democratization of health innovation at the Carle Illinois College of Medicine, but it's also part of her core philosophy. It's about empowering people to recognize their own experiences and traditions as sources of wellness and co-creating healthcare systems to meet their unique needs.

"Communities have information, wellness tools, and ways of knowing that have been passed down over generations, in some cases. So, if we're trying to make the community as healthy as possible, we need to recognize and have room for these cultural tools and ways of being that already exist. It should be a reciprocal exchange between the community and researchers," she said.

Her latest health democratization project kicked off in Chicago this spring. She and her partners, with \$500,000 in funding from the MacArthur Foundation, are training fifty Black and Latinx youth and young adults as community health workers and citizen scientists. The goal is to radically center the youth in an effort to heal from and prevent racial trauma in the form of police killings, gun violence, and higher rates of COVID-19 deaths.

The name of the grant, "Centering Youth's Health and Wellness: Designing a Third Reconstruction and Chicago Renaissance," reveals just how transformative Mendenhall believes this work can be.

"The youth are co-creating the curriculum. We want to know how they're coping. What do they do when they feel bullied, anxious, or hungry, while going to school and trying to concentrate? Once we get that information from them, we can then create wellness tools together. We're planning a wellness store with different versions, from digital to a physical store to possibly vending machines," Mendenhall said. "Democratizing health means getting wellness tools into the streets, at people's fingertips. We're figuring out how to do that."

Program participants will learn to perform basic health assessments themselves, but they will also connect residents with community resources that can address unmet health and wellness needs. The project plans to have community health workers serve as interns with community organizations, churches, barber shops, hair salons, government agencies, health centers, and colleges/universities across Chicago, building capacity for the organizations while promoting job skills for the youth and creating pathways into health careers like medicine or higher education in general. Oh, and there will be art and music. Remember the poetry and guitar? Mendenhall knows the arts are integral to community healing and a holistic Third Reconstruction for the Black community.

"We're talking about unprecedented access to universities, healthcare systems, etc. We want to know what their dreams are, what they want to do, and then try to place them in those fields in the moment," Mendenhall said. "They don't necessarily have to graduate from high school or college first, they can have that experience and opportunity right now. That's the goal. And then, hopefully, that will inspire some youth to take different pathways, whether it's straight into a field or continuing as a community health worker professionally, or maybe going to college."

#### FUELING MOMENTUM

The importance of Mendenhall's work and her commitment to the communities she works with have been recognized, not only by the support of the MacArthur Foundation, the campus Office of Technology Management, and the Cancer Center at Illinois, but also by the Arnold P. Gold Foundation that awarded her the 2021 Pearl Birnbaum Hurwitz Humanism in Healthcare Award. The award is given to a woman who "exemplifies humanism and has advanced the well-being of at-risk or underserved populations, through scholarship, advocacy, and leadership."

"This national recognition is a testament to the incredible impact and significance of Dr. Mendenhall's work for the good of others," said Carle Illinois Executive Associate Dean and Chief Diversity Officer Stephen Boppart, who nominated Mendenhall for the honor. "Ruby is truly a credit to our college and our campus."

Mendenhall and her research team are grateful for the support of the MacArthur Foundation and other funders who believe in their work. It fuels the momentum of their projects and keeps them embedded in the communities they love to work with. And with so many interested in what they are doing, Mendenhall often finds herself giving talks and collaborating with various groups, both in the community and on a national level.

"Often, I start out thinking a project is about big, structural issues, like what do you need in terms of policy. But it clicked that when you sit with someone, look at them, acknowledge them, and ask them how they're doing, you are recognizing their humanity and recognizing they're in a situation they should not be in. They're running from bullets with their children or the children have seen their friends shot, and we're sitting here talking about how that should not be and thinking about how we can change it.

"Sometimes people are like, 'Why are you focusing on that?' But my purpose is to do both. To think about the immediate the sorrow, the hurt, the loss, the grief, the depression, the anxiety that people are experiencing now—and, at the same time, think about how we can change policy," she said. "I'd like to be thought of as someone who's in both of those spaces."



### Behind each named endowment is a story.

**THERE ARE AS MANY REASONS** for giving as there are generous people who give. For some, it is an opportunity to benefit students while also recognizing the ways in which they themselves have been helped by others.

Over the course of the With Illinois Campaign, numerous donors established endowed funds in support of scholarships, fellowships, and faculty positions. Each named endowment has a story of support, inspiration, and connection, making these gifts a special way of looking back while paying it forward.







"My sister was a part of me, and she is a part of me still. This scholarship keeps her memory alive."

#### DAWN TURNER, MEDIA '87

Established the Dawn M. Turner and Kim D. Turner Endowed Scholarship in Media

**BY ESTABLISHING** this scholarship, Dawn Turner (MEDIA '87) hopes to inspire students to pursue untold stories of their own, to counteract the negativity we often see in the media, and to honor her late sister, Kim.

"Ultimately, I'd like to help create an army of journalists who are dedicated to pushing back on stereotypes and negativity," she said. "I'd like to lift up a new generation of storytellers who worked hard to learn the craft, who know how to interview and fact-check and put together a compelling piece. It's encouraging to have our voices and our stories out there in different ways." Turner is a journalist based in Chicago and recently published her memoir, *Three Girls from Bronzeville*, to wide acclaim.



"They're both wonderful teachers, advisers, and mentors."

#### SHARON S. LEE, EDU '10

Established the Hood-Pak Dissertation Research Scholarship in the College of Education

**SHARON S. LEE (EDU '10)** has established a unique, first-ofits-kind scholarship for online doctoral students in the College of Education. Now a teaching assistant professor in the college, Lee wanted to honor Professors Yoon Pak and Denice Hood. Lee has worked closely with them to build the new online program in Education Policy, Organization, and Leadership, particularly its diversity and equity concentration.

While the program has grown quickly, online doctoral students can't take advantage of many campus-based funding sources. "These students are highly motivated, but they're oftentimes paying out of pocket for tuition, working full time with children or grandchildren, and juggling all kinds of responsibilities, with limited funds available to them," she said. "As someone who's benefited from alumni-sponsored awards as a student, I want to continue that spirit of giving now as a faculty member."



"He wanted to do good in the world."





#### MARK BRANDT, GIES '86 & Mary Leyendecker, LAS '86

Mark L. Brandt Public Engagement Fellows, College of Media

Mark Brandt Memorial Fund, School of Social Work

WHEN MARK BRANDT (GIES '86) passed away in 2021, he named his lifelong friend, Mary Leyendecker (LAS '86), as the executor and trustee of his estate. Brandt cared deeply about helping others, and when he passed, his only instructions to Leyendecker were to use his funds to "do good in the world."

Brandt and Leyendecker, both first-generation college students, met during their freshman year when they lived in Forbes Hall. Given the profound impact that Illinois had on the trajectory of their lives, Leyendecker established two programs in Brandt's name, both of which she feels will help support students who will make a positive impact on their communities.

"I am so happy to share his legacy. I feel certain he would enjoy helping those who are going to help society," said Leyendecker.



### THIS IS A PLACE WHERE MIRACLES HAPPEN." Thomas M. Sidel

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#### THOMAS M. SIEBEL

Named the Siebel Center for Design

**THE NEW SIEBEL CENTER FOR DESIGN (SCD)** at Illinois opened its doors in 2021 and is on its way to setting the bar globally for design thinking in education. Thomas Siebel (LAS '75, GIES '83, GRAINGER'85) provided a \$25 million lead gift to establish the center.

SCD is a student-focused, multidisciplinary hub that facilitates and supports innovative approaches to product, process, and userinterface design, with an emphasis on societal relevance, advanced technology, creativity, and multidisciplinary collaboration. The 59,000-square-foot building is located between Huff Hall and the Art and Design Building.

Chancellor Robert J. Jones said SCD is empowering students to design their own futures, much as Siebel himself did at Illinois.

"Tom is a visionary leader and innovator who has made a career demonstrating the transformational power of multidisciplinary approaches and nontraditional thinking to create solutions nobody ever imagined to be possible," Jones said. "His ideas and innovations have, without exaggeration, played a significant role in shaping today's global information, service, and technology economy."

Siebel is the chairman of the Thomas and Stacey Siebel Foundation and the chairman and chief executive officer of C3 IoT, an enterprise PaaS and SaaS software company that enables companies to design, develop, deploy, provision, and operate large-scale AI and "internet of things" applications. The cross-disciplinary range of his academic degrees from Illinois in history, business administration, and computer science is reflected in the tenets of design thinking.

"Our vision for this design center and our vision for this designthinking process," Siebel said, "is that the University of Illinois set the bar at a global scale, by which and to which all other institutions-MIT, Stanford, Yale, Berkeley-will measure their standards."

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## ОВЈЕСТ

Our campus is home to what now numbers in the millions of collected, created, donated, and unearthed objects from all over the world that are part of the university's permanent collection. These treasures have been amassed through the hard work and generous philanthropy of countless students, researchers, professors, alumni, and friends.

During the With Illinois Campaign, donors continued to consider Illinois a safe and permanent home for myriad precious objects. On that pages that follow, we feature a small

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#### Opus Galli Anonym RARE BOOK AND MANUSCRIPT LIBRARY

Newton's Latin translation of a French work on making the philosopher's stone, with corrections and notes by Newton based on his own scientific work. Gift of Jim (GIES '66, '67) and Lionelle (LAS '66, ISCHOOL '67) Elsesser.

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but representative selection of these gifts-items old and new that reflect our natural and cultural history including art, rare manuscripts, maps, fossils, and books.

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These materials (displayed in museums and glass cabinets, tucked safely in boxes and drawers) are used by researchers as well as by instructors in classrooms.

Ultimately, they do nothing less than tell the story of our collective humanity.

#### Fossil prairie research institute

Donated by Paul Kirkland of Portland, Oregon along with nearly ten thousand others to the Illinois Natural History Survey.



#### Mola

#### SPURLOCK MUSEUM OF WORLD CULTURES

Brightly colored textiles decorated with intricate needlework. Blas Islands, Panama, 1970-1989. Gift of Susan Kieffer and Gerard Lopez for the Kieffer-Lopez Collection.

#### 1927 Flapper Dress UNIVERSITY OF ILLINOIS ARCHIVES

Donated by Susan Jones (EDUCATION '69) in honor of her mother, Margaret Bordner (BA 1932), who purchased it as an Illinois student studying abroad in Paris.

#### Baseball division of intercollegiate athletics archives

Used by Norman Gundlach (BS 1928, JD 1931) during a trip to Japan the University of Illinois team took in the summer of 1928. The ball was donated by his son, Frank.



#### Small Storage Basket SPURLOCK MUSEUM OF WORLD CULTURES

Donated by Civil Rights activist Doris Derby (LAS '75, '80), who acquired it during her doctoral studies in South Carolina ca. 1975-1978.



#### Atlas of the British Empire

Reproduced from the original made for Her Majesty Queen Mary's Doll's House. As part of the dollhouse library that holds 200 miniaturized books of actual publications, the atlas's maps—though minuscule—provide accurate representations of the world, including what was then referred to as the British Empire. Purchased through donations to the Map Library Fund.



#### Okimono, Couple with Child and Infant SPURLOCK MUSEUM OF WORLD CULTURES

Japanese wood sculpture, ca. mid-19th - mid-20th century. Part of the Fred A. Freund Collection, which was assembled through his donations over a period of twenty years.

#### Kay Walkingstick, *Loss*, 1989 **KRANNERT ART MUSEUM**

Two panels: (L) acrylic and saponified wax on canvas; (R) oil on canvas. Museum purchase through the John N. Chester Fund and the Richard M. and Rosann Gelvin Noel Krannert Art Museum Fund.



#### Bruker 9.4 Tesla Preclinical Animal MRI System BECKMAN INSTITUTE'S BIOMEDICAL IMAGING CENTER

Purchased to improve imaging for research on understanding brain health, fighting cancer, learning about muscular systems, and more. Gift contributed by The Roy J. Carver Charitable Trust.

#### Drag Costume SPURLOCK MUSEUM OF WORLD CULTURES

Caftan, ca. 21<sup>st</sup> century. Originally part of the 2019 exhibit "In Her Closet: How to Make a Drag Queen." Gift of Stephen Desroches.

Child's Collar SPURLOCK MUSEUM OF WORLD CULTURES Hong Kong, 1952-1959. Gift of Professor and Mrs. Kuo-Tsai Chen Family.





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# IN OUR DNA

The Illinois Commitment scholarship program made an Illinois education possible for Nariah Romero-Rudy (LAS '23). In this essay, she shares the inspiration behind her dream of becoming a genetic counselor.

#### WRITTEN BY NARIAH ROMERO-RUDY

Photograph by Abigail Bobrow

**WHEN I'M IN THE LAB** extracting and isolating a piece of DNA, I'm always in awe of how these tiny bits of genetic material hold the instructions to life.

The DNA in our cells replicates every time a cell divides. The process is precise and reliable—until one day, it isn't. That faulty copy can mean a mutation like blue eyes that appeared in humans thousands of generations ago. It can also mean cancer.

My sister Aleeya and I share DNA inherited from our parents. We both have brown hair, wide smiles, and are fiercely competitive. But when Aleeya developed leukemia ten years ago, I didn't know what DNA was yet. All I knew was that my three-year-old sister was sick, and she and my mother would spend long stretches of time at St. Jude Children's Research Hospital in Memphis. My dad stayed behind with my middle sister and me. He was a truck driver, so our grandparents or aunts took care of us while he had to go on the road. Sometimes, though, we would all make the four-hundred-mile trip to visit Aleeya. I remember how small she looked in the hospital bed, a tube strapped to her arm, her curly, brown hair still covering her head. The chemo would come for that later. Then in October of my senior year in high school, my family and I headed to Champaign for my eighteenth birthday dinner. Right before the Neil Street exit stood a billboard with just a few words: Illinois Commitment. Four Years. Free Tuition.

A sign from above! Literally!

It was those visits that sparked my interest in the healthcare profession. Aleeya had one of the top cancer doctors in the country—really, in the world. I remember being in awe of him. He was mesmerizing. I was comforted knowing he was taking care of Aleeya, and that people like him were doing as much as possible to help.

Now that I'm older, I understand how good a scientist and doctor he was. Watching him translate that information with such kindness and ease was inspiring. After that experience, I knew I wanted to help other people navigate difficult times, just as he helped us.

Thankfully, Aleeya is healthy today. When I look back at it, that one tiny mutation in her DNA had a significant effect on the evolution of our family. For me, it set me on a path that brought me to Illinois.

By the time I got to AP biology class in high school, I dreamed of working in a lab just like the one I work in today. As an undergraduate, I am lucky to work in Dr. Angela Kent's lab where we study microbial ecology, and where I study the powerful, yet sometimes imperfect, story of a pair of coiled polynucleotide chains.

Growing up in Danville, just thirty miles

east of campus, Illinois was literally in my backyard. I had fond memories of going to games and competing in academic challenges on campus.

I knew I would apply, but even if I did get accepted, how would I find the money to attend?



Driving by that simple message convinced me that going here was a real possibility, and I needed to apply.

I'm the first person in my immediate family even in my extended family—to pursue college, so I had to figure out most things regarding the admissions and financial-aid process on my own. At times it was frustrating, but when my middle sister, Savanna, decided she wanted to go to Illinois a couple years later, I was glad I was ready to help her on the path I had just learned to navigate.

For my family, and thousands of others, Illinois Commitment makes our dreams possible. I came to Illinois with the desire to be helpful like Aleeya's doctor, to be strong like Aleeya, and to be driven and empathetic like my mom.

I see my duty as a scientist, and hopefully one day as a genetic counselor, to be able to intervene, inform, and comfort patients so that hope, promise, and a sense of agency will be readily available.

Attending Illinois is not something restricted to people who come from a certain background. Being an Illini means you need a dream and the passion to pursue it. No student should put their hopes aside just because they

don't have the money, resources, or parents who went to college.

Now, I might be getting ahead of myself, but maybe someday, Aleeya, who is only a sophomore in high school, will follow in our footsteps and decide to join us. I have a feeling Illinois is in her DNA, too.  $\bullet$ 

Aleeya Rudy (left) takes a photo with her sister, Nariah Romero-Rudy (center, left), their mother Lucy Romero (center, right), and Savanna Rudy (far right). *Photo courtesy of Lucy Romero* 

2020-2021

## FOUR YEARS. FREE TUITION.

In 2019, we launched the Illinois Commitment program, which covers tuition and fees for up to four years for all qualified in-state students. This past academic year, **30% OF THE INCOMING CLASS ARE ILLINOIS COMMITMENT RECIPIENTS**. Our commitment to make the university more affordable for its students is now even more possible, thanks in part to donor support.

"The Illinois Commitment program truly unlocks the power of the University of Illinois – thereby allowing it to better fulfill its land-grant mission. The program has provided thousands of dedicated students the confidence to apply to, and then the support to attend, the University. As a supporter, I appreciate the opportunity to make an impact at scale and driving accessibility," said Shakeeb Alam (GIES '97), lead donor for the Illinois Commitment program.

Below are numbers reflecting all current Illinois Commitment students:



To support Illinois Commitment, visit: GO.ILLINOIS.EDU/GIVENOW

Doris Kelley Christopher (center) at the groundbreaking celebration with her daughters Julie Christopher (left) and Kelley Christopher Schueler (right).

## IT GIVES ME GREAT JOY TO GIVE, AND I GIVE

#### OUT OF GRATITUDE." Doris Killey Christoph



#### **DORIS KELLEY CHRISTOPHER**

Provided funding to build the Doris Kelley Christopher Illinois Extension Center

**STRENGTHENING FAMILIES AND COMMUNITIES** through gathering and connection have been important themes throughout Doris Kelley Christopher's (ACES '67) life and career. A \$45 million gift from the University of Illinois alumna is supporting the creation of an engagement-rich center located adjacent to the Arboretum.

The Doris Kelley Christopher Illinois Extension Center will serve as the future home of Illinois Extension, uniting six state Extension offices currently on campus into one vibrant, welcoming space. It will also provide a gathering space where statewide Extension and 4-H efforts can come together to synergize.

"This visionary gift will allow Extension to serve generations of future producers, farmers, ranchers, business owners, entrepreneurs, youths, and families, and to connect them to world-class research and innovations," said Director Shelly Nickols-Richardson.

"I am grateful to the university and to Illinois Extension for setting me on the path to love my work for my entire career, and I am delighted to see the Extension Center come to life. It will truly provide a wonderful place for Extension to carry on its important work and connection throughout the state and beyond," said Christopher.

Over forty years ago, Christopher started Pampered Chef from the basement of her suburban home, offering professional-quality kitchen tools through in-home cooking demonstrations. The company blossomed into a multimillion-dollar enterprise, providing highquality, everyday cooking tools and inspiration delivered by a now international community of sixty-five thousand consultants.

"Doris Kelley Christopher's generosity has been creating opportunities at this university to help all of us create new and stronger connections with our families and our communities," said Chancellor Robert J. Jones. "With this new gift, she is once again helping us reimagine how we can bring people together in new ways with lasting impact."

## Creative Endeavors

**CONNECTING WITH THE ARTS** is necessary to understand and express the human experience. The following pages celebrate just a few of the many gifts given to support the arts during the With Illinois Campaign. These gifts will help elevate and sustain the study of the arts for generations to come.



**CÉSAR PELLI DISTINGUISHED LECTURE SERIES** was made possible through the generous estate gift of world-renowned architect and celebrated Illinois architecture alumnus César Pelli (FAA '54). Pelli and designed some of the world's most iconic buildings, most notably the Petronas Twin Towers in Kuala Lumpur. Pictured is 181 Madison, the only building in Chicago designed by Pelli. *Photo courtesy of MB Real Estate* 

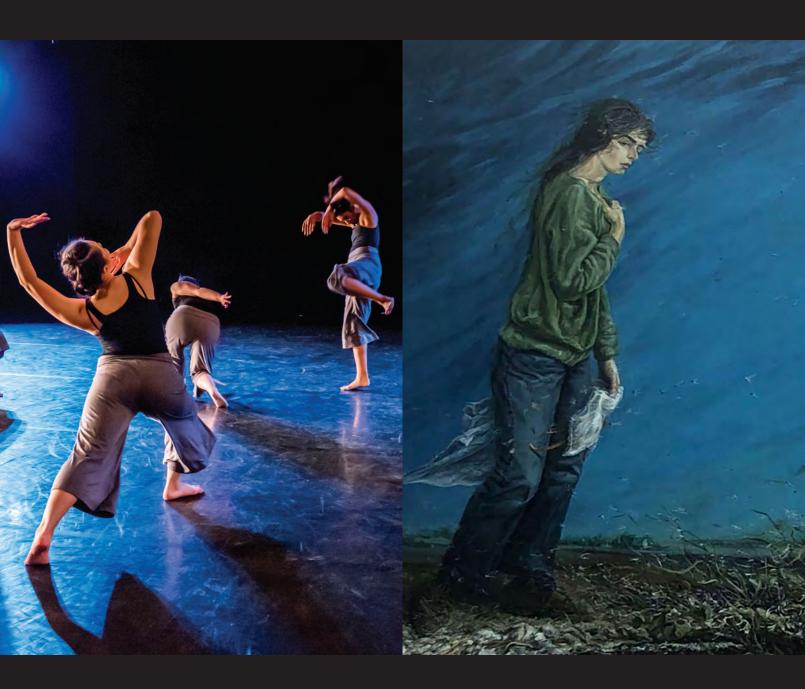


One of the most distinguished alumni of the Illinois choral program, Joseph Flummerfelt (FAA '71), left a bequest to create the **JOSEPH R. FLUMMERFELT FUND FOR GRADUATE CHORAL STUDY,** which will benefit our students for generations to come. His generosity to Illinois students, as both teacher and artist, was profound.



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Strong family and mentor relationships have laid the foundation for JAPAN HOUSE'S FORTHCOMING ANNEX **PROJECT.** Dr. George Ogura, a loyal Japan House supporter who recently died at age 100, made the lead gift for an addition to this treasured campus jewel. Professor Emeritus Shozo Sato, founder of Japan House, and his wife, Alice, also generously contributed.



The painting **WINDWALKER BY BILLY MORROW JACKSON** was donated to the College of Agricultural, Consumer and Environmental Sciences by Blanche Mary Jackson, the artist's wife of thirty years. Jackson taught at Illinois from 1954 until his retirement in 1987.

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Motivated by a passion for the arts, Ahmad (GIES '62, '63, '67) and Dulce Issa have established the **A & D ISSA SCHOLARSHIP FUND,** the largest gift received in the history of the Department of Dance. This endowed fund is meant to support talented dance and music students.

## HOME IS where the **ROBOT IS**

WRITTEN BY BILL BELL Photography by Joseph T. Brumleve Professor Wendy Rogers and other leading Illinois faculty are using the McKechnie Family LIFE Home to define the future of independent living for all ages and abilities.

**A ROBOT NAMED STRETCH** moved in with the Evans family for a couple of weeks in the summer of 2021. The robot may not be the friendliest-looking thing you've ever seen, but that may not matter when it comes to what it can do. It has a telescopic arm that extends from its middle. A two-fingered gripping hand sits on the end. There's a video camera at the top and a mobile base that lets it move around.

On its visit, Stretch didn't vacuum the floors like a Roomba; it didn't discuss the weather or remind the Evanses where their keys were, as Siri might. But Stretch took on a host of tasks that made the Evans' household better.

Before we hear what Stretch was up to, though, let's meet Henry Evans.

Speaking at a TEDx conference a few years ago via a telepresence robot and a voice synthesizer, Evans told the crowd that he had lived "his version of the American dream." Married to his high-school sweetheart. Two kids. A job as a Silicon Valley CFO. And a new house—a fixer-upper—with a beautiful view. Then, on August 29, 2002, after experiencing something akin to a stroke in his brain stem, he became a "mute quadriplegic at the ripe old age of 40."

It took a few years, a very supportive family, and a ton of effort, but Evans is now one of the nation's leading advocates and experts on how robots can help people who have severe disabilities. Leading a nonprofit called Robots for Humanity, he has been working with Professor Wendy Rogers and Professor Charlie Kemp, an engineering professor at Georgia Tech and CTO of a company called Hello Robot, on the topic for more than a decade. It has been a great relationship, and it got even closer last year when the group began collaborating on a Small Business Innovation Research grant from the National Institute on Aging, part of the National Institutes of Health. The grant is what brought Stretch, which is built by Hello Robot, into Evans' home. With an assist from a doctoral student in occupational therapy from Pacific University, Vy Nguyen, Evans learned to control Stretch using a web app and a device that translates the small movements of his head into cursor movements on a standard laptop.

By the end of its stay, Evans was using Stretch to scratch his own head and feed himself. Stretch delivered poems, fresh off the printer, that Henry composed for his wife, Jane. Jane also received recipes that Henry had picked via Stretch, as well as delivery of a rose when she entered the room.

While the Evanses, Kemp, and Nguyen were at work in California, Rogers and her team were at work in Champaign-Urbana. They interviewed older adults about their reactions to the Stretch robot, tinkered with 3D-printed attachments that might improve Stretch's performance, and kept a close eye on the user experience that the Evans family was having.

The Evanses found Stretch wasn't indispensable—a nurse or aide could have done what it did. But Stretch was invaluable.

"We have to ask ourselves over and over, why robots, when a caregiver can do it ten times faster? I see what it does to my husband mentally when he can do things by himself and not depend on anyone," Jane Evans told the researchers. "This is huge, because it translates to one's mental state. [Over the years, robots] gave him a reason to live."

Stretch (left) hands Wendy Rogers, Shahid and Ann Carlson Khan Professor of Applied Health Sciences, a bottle of water in the living room of the McKechnie Family LIFE Home.



Applied Health Sciences Professor Shannon Mejía (right) uses the LIFE Home to study how one of the oldest technologies in human history—fire—impacts older adults' emotional and cognitive states. She collaborates with Professor Jessie Chin of the School of Information Sciences and Napoleon, a company that makes heating and cooling equipment, grills, and fireplaces.

Research participants come into the LIFE Home, sit by the fireplace in the home's study, and play a couple of games on a tablet computer for about an hour. They receive instructions through a Google Home virtual assistant.

This scenario allows the team to test what is known as "enrichment seeking," that is, how older adults are likely to explore or engage in new things. Previous research has shown that older adults tend to stick with the things they know but that enrichment seeking can improve cognitive function and well-being as we age. It also shows that we're more likely to engage in enrichment seeking when stress is reduced.

That's where the LIFE Home comes into play. The team is studying whether its fireplace has a relaxation effect and if older adults are willing to play the games in a more explorative way when the electric fireplace is turned on.

#### LIVING IN INTERACTIVE FUTURE ENVIRONMENTS

On campus, both Rogers and the Stretch robot use the McKechnie Family LIFE Home as their base of operations. The LIFE (Living in Interactive Future Environments) Home opened in the fall of 2021, and students and faculty from across campus use it to develop and test technologies that may someday help people live more independent and more satisfying lives, regardless of age or ability.

Unlike most buildings on campus, the LIFE Home looks like what many of us would call home. A gabled roof. An attached garage. A modern kitchen with stainless-steel appliances and the requisite island. An open-concept dining area leads directly into a living room complete with orange and blue couches and a flat-screen TV.

Local photographer Larry Kanfer's photographs of prairie scenes hang on the walls. It's a two-bedroom, but in a move familiar to empty nesters everywhere—one of the bedrooms has been converted to a study and comes complete with a fireplace. It's homey, mimicking research participants' actual living spaces. But it is also standardized—every person being studied is working in the same space, reducing the variations and challenges that come with conducting research in peoples' homes. Audiovisual equipment, cameras, computer equipment, and other technology are in place for the researchers as well. It's a plug-and-play world, where they can develop ideas in their labs, bring them to the LIFE Home, set them up, and efficiently get going on their work.

"It's a really clever design, meant to foster collaborative research. We're coming from different buildings and perspectives. The LIFE Home creates a space where people can land and work together," said Professor Shannon Mejia, who uses the LIFE Home to study health, aging, and technology in the College of Applied Health Sciences.

#### WHAT YOU WANT, WHERE YOU WANT, WHEN YOU WANT

For years, researchers have defined "successful" aging as the ability to perform essential activities of daily living, things



like brushing your teeth or eating. Researchers also consider instrumental activities of daily living, like paying your bills, cooking, and tidying the house.

However, Rogers and some of her colleagues include a third concept that they call enhanced activities of daily living. These are the things that make life more than just getting by, like talking to friends, hobbies, and volunteering, or maybe hand-delivering your wife a poem by robot.

To put it more simply, Rogers describes successful aging as being able to do what you want, when you want, where you want, and with whom you want.

These activities, especially when done independently, improve a person's health and well-being. Technologies that help people with these activities should do the same, according to Rogers.

"There are many clichés about home. Home is where the heart is. Your home is your castle. I think about home as where you want to be. It provides a sense of comfort and support. And as we introduce technology into the home, we should be enhancing those feelings," she said.

Some technologies more readily make a person feel

supported than others, and much of the research conducted by Rogers and other faculty in the LIFE Home focuses on that. They interview older adults on how robots make them feel and how the robots could help them; they conduct usability experiments to improve the usefulness of devices like Amazon Alexa and develop instructional support tools; they design support systems to help people with hypertension remember to take their meds; they build new software and hardware to improve the performance of technology that is already on the market; and they develop emerging technologies of the future.

By rigorously and quantitatively assessing people's responses to future technology and understanding their needs, they can make it more accessible and improve lives.

"I was working with Stretch the other day, and it brought me a water bottle," Rogers said to a group touring the LIFE Home recently. "I told Stretch, 'Thank you.' Thank you? I don't tell my car, 'Thank you, Car, for getting me to the grocery store' when I get out. What is that? It's all technology, but what are these differences in how we understand and react to and use these technologies?"

#### STRETCHING THE LIMITS OF WHAT A ROBOT CAN DO

Professor Katie Driggs-Campbell, a roboticist in the Department of Electrical & Computer Engineering, uses Stretch in the LIFE Home, too. Her team is designing a wayfinding robot for people with visual disabilities, starting with a needs assessment in collaboration with the Rogers team.

Think of a service dog. Only rather than holding a German shepherd's harness, a person would hold Stretch's "hand."

Driggs-Campbell studies what she calls "human-centered autonomy." She develops algorithms that model human behavior so that computers can better predict how people are going to behave. Autonomous technologies, more and more, are functioning alongside people—whether they are in a healthcare facility, a factory, a farm field, or a car. So, they need to operate safely, and people need to be able to interact with them fluidly.

"You can't design these robots in isolation," she said. "How a person moves and how they are going to respond to the robot is coupled to how the robot moves. And the robot has to communicate what it intends to do." In the case of a wayfinding robot, that might someday include a tug, vibration, or sound.

The robots also have to be able to navigate a space they've never been in before, with or without a human at hand. That means understanding the "semantics of the room," such as where the obstacles and doors are and clues that might let a robot figure out that it is in a kitchen or a bedroom. By collecting data from sensors like cameras or LIDAR (which is like radar, using laser light instead of sound), the team's algorithms will be able to determine the layout of a house, position the robot in that landscape, determine where its human user is, and guide the user.

"The LIFE Home is a perfect playground for us," Driggs-Campbell said. "In robotics, there's almost always a lab bias. You can get about anything to work in your perfect, controlled lab. The LIFE Home gives us the chance to translate [our experiments and testing] to something that is much more realistic."

"And with the LIFE Home we also get Wendy. She has just a ton of experience working with people on usability issues."

Hello Robot's Kemp recognized Rogers' skill in that area, as well. "She is a grounded visionary. Our shared goal is for people to benefit from robots on a daily basis. If people don't find a robot useful and easy to use, they're unlikely to use it. So, Wendy's focus on people is essential."

#### THAT'S WHO WE'RE DESIGNING FOR

When a new student or collaborator joins Rogers' research team, they add their photos to the team's roster of "Elders in our Lab." It's a collection of pictures of family members and friends who are older, kept up to date in a PowerPoint slide. It's filled with pictures of grandparents, parents, and other family members.

"Every presentation we give, there they are. That's who we're designing for. It reminds us of who we want to think about," Rogers said.

It's easy for a 25-year-old grad student to forget, and it's something the rest of us often try to put out of our mind, but we all get older.

Whether suddenly or gradually over time, we all face changes in our physical and cognitive circumstances. We're all left to navigate those changes—to figure out how our worlds will expand or contract and to explore what tools we'll use to manage and, hopefully, thrive.

In January 2022, about twenty years into using assistive health technologies, Henry Evans talked to *Nature* magazine about his experience with the Stretch robot.

"It's very important to me, from a sense of self-worth, to do things for myself independently whenever I want, even if it is slower," he said.

His goal sounds a lot like Wendy Rogers' goal of helping people do what you want, when you want, where you want, and with whom you want as they age. And, together, they're making it happen. *To support the McKechnie LIFE Home, visit: lifehome.ahs.illinois.edu/donors* ●



#### THE LIFE HOME WAS MADE POSSIBLE BY KAREN (AHS '70) AND JIM (LAS '70) MCKECHNIE.

Both McKechnies and their three daughters all graduated from Illinois, and Jim McKechnie spent his career as an orthopedic surgeon in Champaign-Urbana. Arthur D. Fisk (LAS '82)— Wendy Rogers' husband and a retired professor of psychology at Georgia Tech—also supported the facility by establishing the Arthur D. Fisk Interview Room and the Rogers Family LIFE Home Research Fund.

LIFE stands for Living in Interactive Future Environments. "Each of those words has meaning, and we thought about them carefully," explained Rogers. "Living' connotes active engagement. 'Interactive' refers to the people and the technologies working together. 'Future' is forward thinking. And 'Environments' is deliberately plural, because people live in a lot of different places. Homes come in many shapes and sizes, and we want to think about all of them."

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#### THE CARLE FOUNDATION

Named Carle Illinois College of Medicine

**THE CARLE ILLINOIS COLLEGE OF MEDICINE,** the world's first engineering-based medical school, graduated its inaugural class in May 2022. The convocation marked a historic moment for the University of Illinois Urbana-Champaign, Carle Health System, its surrounding community, and the field of medicine.

Created in 2015 through the generous and foundational funding provided by Carle Health System, Carle Illinois emphasizes human factors, design thinking, medical technologies, and entrepreneurship to prepare caring, compassionate, and skilled physician innovators for the practice of modern medicine. Private funding supported the thirty-two inaugural students, who each received full, four-year tuition scholarships.

Part of the experience for many medical students is working in the Jump Simulation Center where they use virtual reality and manikins, models that simulate the human body, to practice their skills. Located in the lower level of the newly renovated Everitt Laboratory, the Jump Simulation Center was launched by a generous \$10 million gift from Jump Trading, which was co-founded by alumni Paul Gurinas (LAS '90) and Bill DiSomma (GIES '86). The new center provides all the simulation training needs for the Carle Illinois College of Medicine.

Today, the college is home to 185 students and over 650 affiliated clinical and academic faculty members.

"Being a physician innovator to me means asking why we do things a certain way and could there be a better way. It's also about staying patient-focused and not innovating just for the sake of building something new," said Elizabeth Woodburn (GRAINGER '18, CARLE '22), who was part of the inaugural class.

"These graduates prove that Carle Illinois is producing outstanding physicians and leaders who are uniquely prepared to take on the complexities that the future of medicine will bring," said Mark S. Cohen, dean of the Carle Illinois College of Medicine and chief academic officer of Carle Health.







# FAMINE FIGHTERS

From the lab to the field, Illinois crop scientists are engineering a new solution to world hunger.

WRITTEN BY RYAN A. ROSS

Photography by Fred Zwicky

**IT'S HIGH NOON ON AN UNFORGIVING AUGUST DAY,** storm clouds blotting out the bright blue sky, the sun a source of malice and spite. Steve Long, British-born and a boyish seventy-one, takes the Illinois heat in stride—an occupational hazard—as he walks through the ten-acre field, soybeans stretching as far as the eye can see. Though the morning rain has mostly burned away, the smell of humus is still in the air, and the soybeans' freshly watered leaves are a deep green that meets Long's approval as he makes his rounds. But these are no ordinary soybeans—this one field contains more than six hundred different varieties—and Long is no ordinary farmer.

A professor of crop sciences and plant biology, Long is one of the planet's leading researchers on photosynthesis—the process through which plants transform sunlight into energy. For more than twenty years, he and his Illinois colleagues have been expanding science's understanding of how that process works, one research study at a time. Now, they're using everything they've learned to confront one of Earth's greatest challenges—world hunger.

If their plan is successful, they will rewrite the future of humanity itself.



#### **AVERTING DISASTER**

Famine has been an unavoidable fact of the human experience for all recorded history. But with climate change altering our growing seasons and the global population increasing exponentially, the problem has taken on a sense of urgency.

"Today, there are close to a billion people who are calorie insufficient," said Long, mopping his brow amid the summer heat. And it's only going to get worse. As the population continues to grow, the amount of arable land and natural resources will decrease. By 2050, the projected global population will be 9.7 billion—nearly two billion more than today. The United Nations predicts food production will have to increase by 70 percent to meet that demand, and potentially more, depending on the impact climate change has on crop yields.

In response, Long and his colleagues created RIPE (Realizing Increased Photosynthetic Efficiency), an ambitious, international research program that is attempting to redesign the future of food production by using genetic engineering to dramatically increase yields of staple crops in regions that will be most affected by population growth.

Under RIPE's plan, small farmers in sub-Saharan Africa and Southeast Asia will grow those new crops (including soybeans, maize, cassava, cowpea, and rice), raise enough food for their families and for the market, and avert disaster, saving millions of lives. RIPE's origins go back to the early 2000s when Long and his colleagues became the first scientists to simulate the process of photosynthesis in a leaf.

COMPUTER SCIENCE MEETS AG SCIENCE

The experiment was something Long had wanted to do for years, and now that he was a professor at Illinois, a university with supercomputing power, he could finally do it. He and his collaborator Don Ort were excited. They ran the experiment and discovered that photosynthesis, the process that has produced all the oxygen in our atmosphere and serves as the main conduit for carbon dioxide into plants, doesn't always work.

In fact, they found that it's pretty inefficient: It fails 20-25 percent of the time. Even when the process works perfectly, the plant still uses only 3 percent of all the light energy it receives.

Those discoveries led the researchers to ask: Is it possible to redesign the process of photosynthesis to make it more efficient? In other words, to give it an upgrade?

In a series of groundbreaking studies, they determined that, in theory, it was possible. And what's more, the upgrade could help save humanity from catastrophe. More efficient photosynthesis would not only lead to bigger plants but also cause those plants to absorb greater amounts of carbon dioxide from the atmosphere. The result: a dramatic increase in crop yields and a method to address climate change.

נו \_\_\_ Those findings got the attention of the scientific community—and, perhaps more importantly, they got the attention of those who fund the scientific community.

In 2012, Long received the sort of call that most scientists dream of: The Bill and Melinda Gates Foundation had read his team's research and believed that it could be a direct solution to world hunger. They were willing to fund an unprecedented, not-for-profit, international research project to see if it would work.

Ten years later, RIPE has received more than \$83 million in funding, every dollar making the team closer and closer to their goal of redesigning photosynthesis.

#### ENHANCED PHOTOSYNTHESIS

The RIPE Plant Transformation Facility is a nondescript, brick-and-stone building on the southern edge of the Illinois campus. Inside, biotechnologists wearing long, white coats use a variety of methods to transform model plants for their experiments: prediction-based cloning, Golden Gate Assembly, loop assembly—concepts that sound vaguely futuristic but are nonetheless hallmarks of genetic engineering the world over.

Look around the lab, and you'll see familiar sights, even if your last science class was in high school: beakers, pipettes, bottles, scales, washing stations, refrigerators, and WARNING! DANGER! signs. But one of the most familiar things you'll see will also be the most surprising: a series of clear, plastic, domed coffee cups, the kind that usually contains Frappuccinos. Only these cups have nothing to do with coffee—each one is a miniature greenhouse for a tobacco plant.

For RIPE's scientists, tobacco is the gateway plant for redesigning photosynthesis because "it's very easy to transform, and it produces a lot of seed," said Long.

Not only that, but because tobacco grows quickly—eight weeks from seed to mature plant—researchers are able to run more rounds of experiments on it than other potential subjects. "It's a really great test for our hypotheses," said Benjamin Haas, who oversees the project's DNA assembly work on campus. "We're trying to improve a process that has been around for a very long time but developed in an environment that was much different from the Earth today."

Those hypotheses come not only from the RIPE team at Illinois but also from their research partners around the world—in the U.S., the U.K., Australia, and China—all of whom have specific expertise related to plant biology and genetics.

Whenever researchers believe they've found something promising, they send it to the Plant Transformation Facility. There, Haas and his colleagues test the viability of hypotheses, DNA vectors, and genetic constructs, all through the magic of bioengineering. Inside the coffee-cup greenhouses, Haas and his colleagues grow tobacco from tissue cultures imbued with genetic material from pumpkins and algae, the genomes they're currently testing. Each cup contains a specially made gel at the bottom, which encourages root and shoot development, and soon, with light and water and air, the plant begins to grow.

Before the plants fill the cups, Haas and Co. carefully wash the gel from the roots, transfer the plants into small pots, and move them into an incubator, which helps to stabilize their growth before they reach their next stop: a RIPE greenhouse.

> In 2012, Long received the sort of call that most scientists dream of: The Bill and Melinda Gates Foundation had read his team's research and believed that it could be a direct solution to world hunger. They were willing to fund an unprecedented, not-for profit, international research project to see if it would work.

#### **BRIGHTER LEAVES**

Across the street from the Plant Transformation Lab, inside the High-Throughput Phenotyping Facility, David Drag (LAS '08, '14) administers RIPE's state-of-the-art greenhouse: a long, open room with diaphanous windows as walls and stainless-steel benches that run down the center holding row upon row of mature tobacco plants, their bright-pink flowers one of the few bits of splash in an otherwise muted space.

Overhead, a series of high-powered LEDs provides the light the plants receive. From an app on his phone, Drag can adjust the LEDs, one by one or in groups, making them as bright or dim as needed. The greenhouse also has acrylic double walls that hold in air and prevent heat loss; a humidification system; and geothermal wells that maintain the temperature and eliminate the need for outside vents, which prevents insect and pest infestation and ensures an ideal environment for the plants.

Finally, the crème de la crème of the whole operation: the LIDAR system. LIDAR, an acronym for "light detection and ranging," is a 3D scanning technology that allows RIPE's researchers to collect data about every aspect of a plant's growth and maturation. LIDAR's multispectral cameras move



"Weather is our worst enemy, and we need to make sure these plants are going to survive the way we want them to, under all sorts of conditions, so they'll increase yields and feed more people."

- DAVID DRAG, RIPE FIELD TRIALS MANAGER

around the greenhouse on a crane system, all the while creating a fully formed digital image of a plant that can be rotated 360 degrees in any direction. In only ninety minutes, LIDAR can collect precise data about the dimensions, greenness, and other physical qualities from 408 plants. "It's incredible," said Drag. "Using traditional measurements, it would take us over an hour to get that data for a single plant!"

At the end of each experiment, RIPE uses all the data collected to determine whether the plants demonstrated an improvement in photosynthetic efficiency. If the experiment fails, Haas and his colleagues analyze the data, make adjustments, insert new genes, and try again. Meanwhile, Drag prepares for the next round of plants from across the street.

But if the experiment succeeds and the tobacco plants demonstrate an increase in photosynthetic efficiency, Haas and Co. use *E. coli* bacteria to replicate the DNA from those plants in large quantities. From there, they isolate the DNA and introduce a natural soil pathogen as a vector to insert the successful genes into soybean plants. Finally, they repeat the experiment with the soybeans and hope for the best.

If the experiment succeeds in soybeans, the next round of that genotype will graduate to RIPE's true testing ground: the field trial.

## FIELD-TESTED

A mile south of Urbana are the RIPE project fields. From the road, they look like legions of other fields across central Illinois, but a closer examination yields a few key differences.

For one thing, the soybeans aren't planted in uniform rows. Instead, they are planted in distinct groupings. Some are covered with red and silver aluminum foil, their carbon dioxide and water use monitored by machines that look like robots from the Pixar movie *WALL-E*. Others are left to their own devices, taking in water and sunshine like any other plant on a summer day.

Not far from the robots, in a clearing between fields, a large canvas tent gives shade to a team of crop scientists, as they clip and label thousands of soybean plants fresh from the ground. Above it all, suspended high in the sky, is the spider cam, the biggest agricultural camera array on Earth, large enough to cover an entire ten-acre field. This type of camera collects biological data—in fact, the same data Drag collects in the greenhouse but in a field setting.

From his modest command center in a nearby on-site trailer, Senior Research Programmer Brett Feddersen, (GRAINGER '86, '93, GIES '99), controls the location and altitude of the array, scans hundreds of crops in a matter of minutes, and collects and analyzes data that would have been unobtainable only a few years ago.

He and his colleagues use that data to determine whether the plants that were successful in the greenhouse can withstand the changing environment of the great outdoors. For Drag, the project's field trials manager, that's the moment of truth.

"We're trying to make a more productive plant that farmers already know how to grow, and the field trial captures that chaos of growing outside," Drag said. "Weather is our worst enemy, and we need to make sure these plants are going to survive the way we want them to, under all sorts of conditions, so they'll increase yields and feed more people."

## **REGULATORY HURDLES**

If all goes well, and RIPE does find a consistent solution for redesigning photosynthesis, it will still face an uphill battle to get its crops to the farmers who need them.

That's because the crops in RIPE's experiments are transgenic, or genetically modified, organisms (GMOs) that will need to pass test after test and meet a laundry list of government regulations before they can be made available to consumers.

"From start to finish, it could take anywhere from fifteen to twenty years to get these crops to farmers," said Drag. And that's if—a big if—the crops don't face additional resistance from governments, activists, and farmers in Africa and Asia, where GMOs are more demonized than they are in the U.S.

In recent years, many environmental groups have changed their minds about GMOs, in response to long-term research studies, which have proven that transgenics are safe to eat and are not harmful to the environment.

But public sentiment, formed and hardened nearly a quarter-century ago, has remained largely negative. And the necessary, but perhaps exceedingly strict, government regulations remain in place.

"We never really had an honest conversation about GMOs in this country," said Lisa Ainsworth (ACES '03), RIPE's deputy director. "We need to explain that the technology we're using is essentially the same technology that's used to make all sorts of stuff, from insulin to COVID vaccines. Scientists haven't done a good job of talking about the technology, and it's been confusing to the public. And a lot of our success will come from how we frame the conversation and educate people."

Despite the challenges, Long believes that RIPE's approach is the correct one—the plan that has the greatest capacity to increase food security for the greatest number of people.

When Long and his colleagues first began talking about this project with the Gates Foundation more than a decade ago, one of Bill Gates' advisers voiced concerns about the controversy over transgenic crops. According to Long, Gates said, "Yes, but if we do nothing now, and in twenty years' time we finally need this, it's going to be too late. We need to insure against the future."

"The world is going to solve its population growth problems," Long said. "But it would be best if we could avoid doing that through starvation. And that is what RIPE is trying to do."



#### **GENEROSITY HAS**

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#### **NEW SQUARE FEET**

#### ON CAMPUS.

**OUR CAMPUS HAS GROWN SUBSTANTIALLY** during the With Illinois Campaign. With the help of donors, we have added beautiful new buildings, state-of-the-art classroom space, game-changing new athletic facilities, and more.

Within the brick and mortar, these facilities provide more than just space. They facilitate collaborative work, with impact that extends way beyond campus to people across the state and the world. The Kavita and Lalit Bahl Smart Bridge, for example, collects real-time data that inform the design of safe and sustainable structures. The Doris Kelley Christopher Illinois Extension Center will pull together the resources of Extension offices around the state to deliver better programs and support for our farmers, children, and communities. And our myriad new athletic facilities have absolutely transformed our athletic campus, launching an exciting new era for our student-athletes.

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MAP DATA © 2022 GOOGLE

A culture of excellence depends, in part, on an excellent infrastructure. Thanks to our donors, our campus continues to be a gorgeous backdrop to our important and impactful work. Enjoy this selection of new spaces on campus.



**1. THE FEED TECHNOLOGY CENTER,** completed in early 2021, accelerates scientific discovery in feed science, grain storage and processing, and feed and pet food manufacturing. The \$20 million facility replaced a 1920s-era feed mill originally built to process university-grown grain and feed university-owned livestock. More than twenty companies, commodity groups, and private individuals donated funds or equipment to the project as part of a unique public-private funding model, fast-tracking the build after decades of planning.

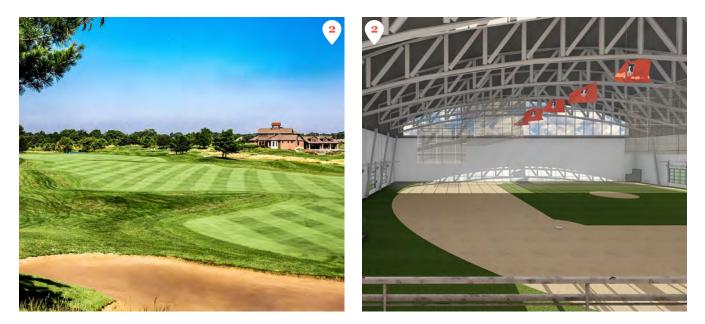
#### 2. ATKINS GOLF CLUB & ATKINS BASEBALL TRAINING CENTER

The Atkins Group generously donated more than three hundred acres of real estate in southeast Urbana, including the Stone Creek Golf Club, to the university. Now known as The Atkins Golf Club, this championship-caliber public course is home to the Fighting Illini Division I men's and women's golf programs. And thanks to a lead gift from Susan Atkins, the Fighting Illini baseball program has a new home in its state-of-the-art indoor practice facility, the Susan and Clint Atkins Baseball Training Center.

**3. THE HENRY DALE & BETTY SMITH FOOTBALL CENTER** opened in August 2019 thanks to a lead gift from the H.D. Smith Foundation, led by Dale and Chris (GIES '79) Smith. The world-class facility includes strength and conditioning and sports medicine space, coaches' offices, position meeting rooms, player development areas, locker rooms, and other areas for recruiting and prospect hosting.

**4. JAPAN HOUSE ANNEX** Strong family and mentor relationships have laid the foundation for Japan House's forthcoming annex project. With support from the late Dr. George Ogura and his sister Alice, founder of Japan House Professor Emeritus Shozo Sato and his wife, and actor and comedian Nick Offerman (FAA '93), the Ogura-Sato Annex will provide much-needed meeting, library, and storage space for growing collections, as well as improved accessibility.

**5. SIEBEL CENTER FOR DESIGN** Building on Illinois' long relationship with Thomas M. Siebel (LAS '75, GIES '83, GRAINGER '85) and the Thomas and Stacey Siebel Foundation, the Siebel Center for Design opened its doors in 2021. The only design center of its kind in the U.S., the design center practices, models, and teaches design thinking and human-centered design in collaboration with all disciplines, majors, and departments at the university and with the broader Champaign-Urbana community.

















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#### 6. DORIS KELLEY CHRISTOPHER ILLINOIS EXTENSION

**CENTER** Thanks to a generous gift from Doris Kelley Christopher (ACES '67), we recently broke ground on this center that will unite six Illinois Extension offices into one vibrant, welcoming space and serve as a bridge between discovery research conducted on campus and the translation of that work into communities around the state and beyond.

#### 7. BRUCE D. NESBITT AFRICAN AMERICAN CULTURAL CENTER

In 2019, The Bruce D. Nesbitt African American Cultural Center found its first permanent home on the Urbana campus, re-establishing the corridor of cultural centers into one unified neighborhood on campus. The center provides a safe and welcoming environment for African American students and a resource to the campus at large regarding African American contributions and issues.

#### 8. THE REX & ALICE A. MARTIN SOFTBALL TRAINING CENTER

broke ground in 2021 and will provide a premier indoor performance and development facility for Fighting Illini softball student-athletes, including a full infield as well as hitting and pitching cages. Lead support for the center was made by the Rex and Alice A. Martin Foundation in memory of Alice Martin (GIES '81).

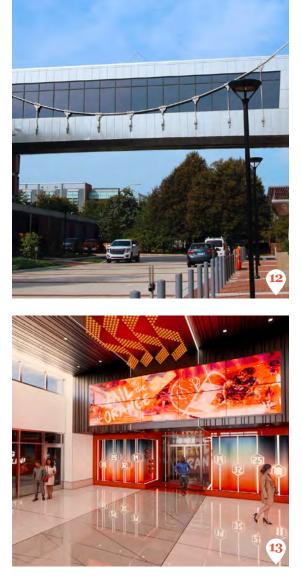
**9. THE MCKECHNIE FAMILY LIFE HOME**, established thanks to a lead gift from Jim (LAS '70) and Karen (AHS '70) McKechnie, is a cutting-edge research center focused on innovations in home environments. This facility mimics existing home dwellings, as well as provides space for the development of next-generation smart homes that would allow people of all ages and abilities to live fuller, healthier, and autonomous lives.

**10. SIDNEY LU MECHANICAL ENGINEERING BUILDING** Over 28,000 square feet were added to the newly named Sidney Lu Mechanical Engineering Building, funded by a generous gift from Sidney Lu (GRAINGER '81). These additions and renovations have transformed the building from approximately 66,000 square feet of 1950s-era space (that included no student labs) to approximately 94,000 square feet of modern space complete with many instructional labs, makerspaces, community spaces, and active-learning classrooms.

**11. DEMIRJIAN PARK** The Demirjian family, led by Richard Demirjian (LAS '88) and Kara Demirjian-Huss (ACES '92), provided a lead gift to develop Demirjian Park. With two new soccer fields, a renovation of the track and field complex, and the project's centerpiece, the Demirjian Park Stadium, this gift directly benefits more than 25 percent of the Fighting Illini student-athlete population.







**12. THE KAVITA & LALIT BAHL (GRAINGER '69) SMART BRIDGE** connects Newmark Civil Engineering Laboratory with the newly constructed addition to the Hydrosystems Laboratory. The bridge showcases environmental design options, innovations in structural health monitoring, and the effects of dynamic forces on the built environment. Data from multiple sensors are collected, stored for future reference, and graphically displayed on the bridge for viewing by visitors.

13. THE RICHARD T. UBBEN BASKETBALL COMPLEX'S

\$40 million renovation will add approximately 40,000 square feet while remodeling more than 40,000 square feet of existing space. The renovation includes two new half courts; a dramatic, glass-enclosed strength and conditioning addition; an expansive sports medicine area, including hydrotherapy and sports science spaces; and a tripling of the locker rooms and player lounges.

**14. ILLINI HALL** As part of the Campaign for Altgeld and Illini Halls, a newly constructed, six-floor, 140,000-square-foot facility will replace Illini Hall. In addition to classroom space, it will also include a data science center, which will serve as the Urbana-Champaign hub of the University of Illinois System's Illinois Innovation Network. Designs call for Leadership in Energy & Environmental Design (LEED) Platinum certification, which is the highest ranking by the U.S. Green Building Council.



## **Restoring** a campus treasure

THEFT

**OUR ILLINOIS MEMORIES** would be incomplete without the sound of Altgeld's chimes serenading our walk to class, or the sight of its iconic red tile rooftop cutting through the campus skyline. With a combination of funding from the state and campus as well as donor support, work has begun on the renovation of one of our most treasured campus buildings. Altgeld Hall will receive accessibility and technology updates while restoring the historic features of this iconic facility. Current plans include the restoration of mosaics, murals, and woodwork in Altgeld Hall's magnificent library, as well as providing state-of-the-art classrooms for the thousands of students who pass

THE PHILLIP K. AND

through the building every day.

MADONNA L. MATTESON CHIME ROOM

Phillip (COMM '57) and Madonna Matteson have always revered Altgeld for its history and the serene sounds of the chimes, and consider it an honor to be a part of its restoration.

#### THE BORDERS RUFF ENTRYWAY

The arched entryway on the north side of the building will now be named in honor of Ramona Borders (GIES '48) and Peggy (LAS '75) and Gerald Ruff, whose friendship and shared love of Altgeld inspired them to make gifts to the project.

#### THE TONDEUR READING ROOM

A desire to improve the educational experience for students led Philippe Tondeur, professor emeritus and former chair of the Department of Mathematics, to support Altgeld.

To support the Campaign for Altgeld and Illini Halls, visit las.illinois.edu/giving/altgeldillini.

# **GIFTS** IN BRIEF



## ELEVATING JOURNALISM

Rich (GIES '65) and Leslie Frank have given the largest gift in the College of Media's history to establish the Richard and Leslie Frank Center for Leadership and Innovation in Media. The center will have a transformative impact on students and will define future excellence, particularly in journalism programs.

"Now more than ever there is a critical need for good, solid, objective journalism in this country," the couple said. "We are encouraged our contribution will help create the highest level of learning for the next generation of journalists and that we are able to play a part in elevating the stature of the program at Illinois, making it a top destination for students and faculty."

A portion of the Franks' gift will be used to create a state-of-the-art broadcast facility within the Richmond Studio, and additionally to create two classrooms in Gregory Hall to accommodate the use of new technologies and to offer space for media editing and production.

- Sue Johnson

## FIELD WORK

For Jason Abbott (GRAINGER '97), a strong relationship with the University of Illinois has always been important. As an agricultural and biological engineering (ABE) student, Abbott specialized in power and machinery. He now works in design and verification on John Deere's harvester engineering team. As part of maintaining the company's

relationship with the College of Agricultural, Consumer and Environmental Sciences (ACES) and Department of ABE, Abbott recently helped make possible the donation of a S660 combine and corn head. Designed for easier and faster harvesting, the S660 allows staff and students to harvest corn and soybean research plots more efficiently.

"It's important to provide that opportunity for students to have hands-on experience and actually see, touch, and work with products," Abbott said. "Not every student is great on theory. So, opportunities like this enhance the education and experience."

— Carolina Garibay



## SUPPORTING COLLABORATIVE SCIENCE

Denise Elser (LAS '84) has always believed in using multidisciplinary collaborations to solve important problems. Throughout her career specializing in gynecological surgery, she has maintained a balancing act between surgery and research, and often strives to use engineering techniques to solve surgical problems.

This same spirit of innovation drew Elser to the Carl R. Woese Institute for Genomic Biology (IGB) in 2017, where she first learned about the facility and was intrigued by the social and ethical implications of advances in genomic sciences. During a subsequent visit in 2019, she was impressed by the different IGB themes and was inspired to make a



## TREATING CANCER WITH COMPASSION

Shahid Khan (GRAINGER '71) and his wife, Ann Margaret Khan (LAS '80), have made a gift of \$15 million that will transform the integrated oncology program at the University of Illinois Veterinary Teaching Hospital. The Khan family made the gift in recognition of the extraordinary level of care provided to pets with cancer and their families through the oncology service. Both the Khans' dogs, Louie and Shanelle, received cancer treatment at the hospital.

"We've treasured every moment with our family pets over the years, and in the case of Louie and Shanelle, they've given us more joy than we could ever possibly give them in return," said Ann Khan. "This gift is in their honor and in tribute to everyone at the College of Veterinary Medicine. Their commitment to the wellbeing of all animals is impressive and quite humbling, and for that we are grateful."

"Ann and I want to do all we can to ensure that the remarkable service and care we enjoyed at the Veterinary Teaching Hospital is accessible to everyone and their pets," Shahid Khan added.

"We are grateful to the Khan family for their compassionate vision of helping pets with cancer and the people who love them," said Dr. Laura Garrett, who heads the oncology service. "With their gift, our faculty will grow to two oncologic surgeons, two radiation oncologists, and five medical oncologists."

— Chris Beuoy





generous contribution to the Director's Innovation Fund.

Her gift helps research groups develop tools to investigate how environmental toxins can impact reproductive health. "I decided to donate because there are so many teams of specialists that get together from different walks of life, and they make projects work because they approach them from different angles," Elser said.

— Ananya Sen



## FUNDING THE FUTURE LIBRARY

The Undergraduate Library building is being transformed into a facility that will house the University Archives, the Illinois History and Lincoln Collections, and The Rare Book & Manuscript Library. Between campus support, fundraising, and internal allocations, the entirety funding has been secured for construction, with the first phase expected to be completed in 2024. graduate students are now integrated into the Information Center, Funk ACES Library, and other units around campus.

Steve (GIES '78) and Megan (LAS '80) Shebik, who celebrate over forty years of giving to Illinois, are among the many supporters of the renovation. "What impresses us most about the plan," said Megan Shebik, "is how far it is looking to the future."

- Heather Murphy

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## **TWO THUMBS UP**

The College of Media is honored to celebrate the legacy of Roger Ebert (MEDIA '64) through the newly launched Roger Ebert Center for Film Studies.

Gifts totaling more than \$5 million were raised from a collection of donors—inspired by a lead gift from Roger and Chaz Ebert. Funding will support robust annual programming, including the Ebert Symposium, Ebert Lecture, and a screening series.

"Unlike many centers on film studies, which focus primarily on the skills of making a film, Roger's center will also focus on analysis and study of films, the state of the industry, and the impact of film on individuals and society for personal and social change," said Chaz Ebert, CEO of Ebert Digital LLC and cofounder of Ebertfest.

- Holly Rushakoff

## A PATH THROUGH THE PEONIES

A crowd gathered in the Allerton Park and Retreat Center Peony Garden in May 2022 to dedicate the iconic, much-visited area of the park that explodes in color each spring with fifty-plus varieties of peonies.

Although the peony gardens date back some eighty to ninety years, more recent developments prompted the celebration: the installation of an accessible pathway, allowing for inclusive access for visitors from around the country to see the more than 1,600 flowers that bloom there annually.

Donors large and small came out in person and gave online to the crowdfunding campaign, raising most of the funds needed to make the walkway accessible. Deborah and Michael (AVIATION '72)

Westjohn generously added their lead gift to finish the project and set up an endowment for the future care of the peonies.

— Stephen Hoffman





#### LOYAL ADVOCATES

A \$5 million commitment has established the Kimball R. (LAS '74, LAW '77) and Karen Gatsis Anderson (LAS '74, LAW '77) Center for Advocacy and Professionalism, the largest non-deferred gift in the history of the College of Law. The Andersons have long been strong supporters of the college. They have given to the Law Annual Fund every year since their graduation, provided the naming gift for the college courtroom, and provided summer fellowships for students pursuing fields in public interest, including support to the COVID-19 Practicum and the Racial Justice Practicum. The Andersons have funded scholarships to attract top talent and have also established a deferred commitment to the College of Law.

"A strong need exists to better equip the next generation of lawyers with advocacy skills and an understanding

## SPACE TO BUILD COMMUNITY

At the launch of the With Illinois Campaign, the School of Labor & Employment Relations focused on a priority nearly sixty years in the making. With generous alumni and donor support, we were able to provide our students with enhanced space to build community. The new space includes an accessible front entrance, attractive lobby, active-learning classroom, tiered lecture space, and an attractive plaza for outdoor events. Upgrades to the existing building include modern finishes for all PhD offices, new windows throughout the building, new finishes for the existing Wagner Education Center, and two additional bathrooms.

- Cory Hatfield







## CAMPUS IS A CLASSROOM

David Frankel (UNI '76, GRAINGER '80) established The Frankel Fund for Learning Innovation to serve University Laboratory High School's mission by making extracurricular learning opportunities on the Illinois campus available to Uni students.

The first iteration of the program included an internship program in collaboration with the National Center for Supercomputing Applications (NCSA).

Students developed a research plan with the assistance of a Uni High staff member, their NCSA mentor, and NCSA's education coordinator. Student interns were also invited to participate in NCSA events such as lightning talks, colloquia, and other training opportunities. At the end of the semester, a poster session and reception were held at NCSA to highlight work Uni High students conducted during their internships.

— Janet Kroencke

of the professional responsibility obligations attendant to client advocacy. We hope that our gift will enable the University of Illinois College of Law to lead the country in these critical disciplines," said Kimball Anderson.

— Krista Gaedtke





## **BETTING ON BITCOIN**

Gies College of Business alumnus—and successful professional poker player—Stanley Choi (GIES '96) has made a living being comfortable with ambiguity. So, it should be no surprise that he wholeheartedly embraced what some believe is the next great frontier: cryptocurrency and blockchain.

Looking to invest in this disruptive innovation, Choi, founder of Head & Shoulders Financial Group, a brokerage and investment company based in Hong Kong, donated \$100,000 in Bitcoin to integrate blockchain education into the academic and extracurricular experience at Gies. It is the largest cryptocurrency gift in the history of the university.

"It's not about the length of time you spend at a certain place," Choi said, thinking back to his short time as a master's student at Gies. "It's about the impact that place makes on you. I'm so appreciative and grateful of those who made a difference in my life. The University of Illinois didn't care where I was from. They treated me as an equal. I felt very warm and welcome."

- Aaron Bennett

#### LIBRARY TREASURES

Loyal Friends of the Library Lionelle (LAS '66, ISCHOOL '67) and James (GIES '66, '67) Elsesser recently supported the acquisition of a treasured 17th century manuscript by Sir Isaac Newton. *Opus Galli Anonymi* is his unpublished Latin translation of French instructions for making the philosopher's stone, including his own notes. The couple also helped the Library acquire a copy of *Campi Phlegraei*, one of the most celebrated books on Mount Vesuvius by Sir William Hamilton, a leading

Plate XXXVIII from *Campi Phlegraei*, a hand-painted illustration of the eruption of Mount Vesuvius

scientific pioneer of the age. This book contains hand-painted illustrations of the eruptions of Mount Vesuvius volcano throughout the 1760s and 1770s.

Additional giving from the Elsessers supports academic programs and recruitment efforts within the iSchool and the creation of an exhibition space in the planned Archives and Special Collections Building. The gift will also generate \$50,000 annually for the Katharine L. Sharp Scholarships, which are available to students in all iSchool programs.

- Heather Murphy



## **OCEANS 1876**

Gillen D'Arcy Wood, professor of environmental humanities and English and associate director of the Institute for Sustainability, Energy and Environment, recently received a prestigious 2021 Andrew Carnegie Fellowship for a project that will provide widespread access to ocean data collected 150 years ago.

The HMS Challenger, a small British warship that had been converted into the world's first floating laboratory, spent four years charting the ocean floor, measuring ocean temperatures and



chemistry, and collecting marine specimens from the unexplored deep sea. The thousands of bottled specimens, original illustrations by expedition artists, and fifty volumes of Challenger data inaugurated the modern fields of oceanography and marine biology.

The Oceans 1876 project blends humanities research methods with the physical sciences, while also using technology and Big Data. Wood's Carnegie fellowship provided funding for him to collaborate with the National Center for Supercomputing Applications (NCSA), with Christopher Navarro and Kaveh Karimi Asli leading NCSA's efforts. The technical goal of the project, they say, is to extract, validate, and modernize the oceans and species data from the Challenger's extensive reports, which contain more than thirty-thousand pages.

The digitized data will also help provide answers to vital eco-historical research questions. For example: Where has ocean temperature increased and by what degree? What marine species encountered by Challenger scientists have migrated, expanded, or contracted in range or gone extinct? How has ocean acidification affected marine ecosystems? And how has warming altered the direction and strength of major ocean currents? Scientists look forward to discovering some answers.

- Barbara Jewett



## VISUALIZING SOCIAL JUSTICE THROUGH ART

As part of our seventy-fifth anniversary celebration, the School of Social Work commissioned a variety of artwork to communicate our school's central value of diversity and commitment to social justice. *Waskonedoyen* is part of a series made possible through the generosity of School of Social Work alumni, donors, and funding from the John N. Chester Estate Endowment Fund. This series of art recognizes the need for and facilitates discussions around the complexities of racial and social justice, while elevating and empowering the voices of underrepresented populations and groups.

One of the pieces, shown above, is by artist Monica Rickert-Bolter. In her artist statement, she writes: "*Waskonedoyen* is the Potawatomi word for 'flowers.' They are delicate, vibrant, lush, and resilient, similar to those who suffer from abusive relationships. Four out of five Indigenous/Native womxn have experienced domestic violence, and this dangerous epidemic is known as Missing and Murdered Indigenous Womxn, Girls and Two-Spirit (MMIWG2S). Indigenous womxn have built awareness by putting a red handprint across their mouths for the victims and survivors."

– Amy Frederick



## "This is Illinois at its best."

- DR. MARTIN D. BURKE, INAUGURAL MAY AND VING LEE PROFESSOR FOR CHEMICAL INNOVATION AND MEMBER OF THE SHIELD TEAM





Thank you for your loyalty and support, especially during this extraordinary time. **DESPITE THE SERIOUS CHALLENGES** our world has faced due to the COVID-19 pandemic, Illini on- and off-campus continue to extend their generosity and support to our community.

From supplying emergency funding for students to providing personal protective equipment to continuing their loyal support for colleges and programs, individual donors have been important partners in helping us face this challenge head on.

Our SHIELD saliva-based testing program, developed by a team of campus faculty and scientists, gave us the ability to track infections, create testing and isolation protocols, and keep our campus open and safe. And with initial funding from the Rockefeller Foundation, we were able to extend access to SHIELD by partnering with the state of Illinois to roll out testing to K-12 schools across the state. Access expanded again through the creation of two spinoff organizations, SHIELD Illinois and Shield T3, and to date over fifteen million tests have been performed worldwide.

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