UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

LAS NEWS

COLLEGE OF LIBERAL ARTS & SCIENCES | WINTER 2015

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RENOVATING A LANDMARK

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LAS NEWS

COLLEGE OF LIBERAL ARTS & SCIENCES

WINTER 2015

Dear Alumni and Friends,

Winter is in full swing on our campus, with snow beautifully adorning the Alma Mater and dusting our historic Quad. The cold temperatures are making us pull our hats down a little further and zip our coats a little higher. Experiencing the throes of winter also means we are at the midway point of our academic year, a time to reflect on what has happened and what is yet to come.

I now have spent my first semester as the Harry E. Preble Dean of the College of Liberal Arts and Sciences and I am excited about our future. In just a few short months, I have had the good fortune of meeting many of you. I am truly inspired by the stories of your time on campus, the connections you have made, and the impact your college years have had on your professional and personal lives.

I also find inspiration in the stories included in this issue of *LAS News*. Inside these pages you will find engaging features about wonderful alumni including Ella Chafee (BA '67, Spanish), whose pioneering spirit earned her entry into two halls of fame; Katherine Hayhoe (MS '97, PhD '10, atmospheric sciences), a climate change advocate who was named one of *Time* magazine's 100 most influential people of 2014; Patrick Walsh (BA '07, economics), the founder of Greenlight Planet, a highly successful business that brings light into areas of developing countries; and Peter Senter (PhD '81, chemistry), the leader of a team at Seattle Genetics that brought a landmark cancer drug to market.

Our cover story highlights one of the most historic buildings on our campus—the Natural History Building. We're excited about the restorations that will bring this historic landmark into the 21st century. You can also learn more about the intriguing existence of a forgotten time capsule that was recently discovered in the building's cornerstone.

There are a number of other stories including an update on our impactful Lincoln Scholars program; a feature on faculty member Julie Dowling and her work with the U.S. Census; a story on an unlikely reunion of three post-doctoral students from California; a feature on a multidisciplinary book, *Illinois Sampler;* and a roundup of a few news items from around the college.

I hope you enjoy the issue and I wish you the best in the remaining winter months.

Best Regards,

Barbara J. Wilson, Dean
COLLEGE OF LIBERAL ARTS AND SCIENCES

LAS News Winter 2015

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LAS News is published for alumni and friends of the College of Liberal Arts and Sciences, University of Illinois at Urbana-Champaign, Office of Advancement, 2111 S. Oak St., Suite 100, Champaign, Illinois 61820, (217) 333-7108. The college also publishes a monthly email newsletter, *LAS News Online*. Please direct all inquiries about either publication to the editor at laseditor@illinois.edu or at the above address.

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The Greatest Adventure

Meet the 2014 LAS alumni award winners.

By Doug Peterson

"Life is an adventure," because you never know what path your career will follow, says Laura Bolton, one of six LAS award winners this year.

Bolton majored in psychology but ended up becoming a leader in wound care management. Another 2014 award winner set his sights on music, but instead made significant breakthroughs in cancer treatment. A third recipient hoped to become an Air Force pilot, but became chief technical officer for one of the largest chemical companies in the world. And a fourth award winner just happened to stumble across an Illinois survey course that sent him off in a completely unexpected direction—creating a company that makes solar lights for developing countries.

Meanwhile, the two winners of the LAS Quadrangle Award didn't wind up on unplanned career paths, as the others did. But they were still caught up in unlikely adventures. One of them jumped from planes for the Army Rangers, while the other dove down to one of the oldest shipwrecks in the ocean.

The following are the six 2014 LAS award winners and their adventures.

LAS Alumni Achievement Award Winners

William F. Banholzer was looking for variety in his work when he began with General Electric, and that's what he got. In his career with GE and Dow Chemical, he has worked on artificial diamonds, plastics, solar-powered shingles, lighting, stealth technology, and more. He was also chief technical officer for Dow, one of the world's largest companies.

Laura Bolton is one of the nation's leading authorities on wound care. She was a pioneer in occlusive bandages, which hold moisture close to the wound, accelerating healing and reducing pain. She also led the team that created a new and improved version of DuoDERM, the most widely used hydrocolloid dressing. It even works on the most difficult-to-heal wounds.

Peter Senter made some of the earliest breakthroughs in the use of antibodies to target cancer cells without destroying nearby healthy cells. He was also one of the founding members of Seattle Genetics, which developed the drug Adcetris, an important treatment for Hodgkin's lymphoma, the most common cancer among teenagers between the ages of 15 and 19.

LAS Recent Graduate Award Winner

Patrick Walsh discovered the need for improved lighting in developing countries while on a trip to India as a University of Illinois student. This trip inspired him to start Greenlight Planet, a company that sold a million solar lanterns in 2013 and topped that number in 2014. Solar lanterns replace the more dangerous and expensive kerosene lamps. Read more about Walsh on page 6.

LAS Quadrangle Award Winners

Allan C. Campbell has always been fascinated by archaeology and history, and he even explored a ship from the late Bronze Age. He used his knowledge in these subjects to become deeply involved in U of I's Spurlock Museum. Campbell and his wife donated funds for the Greek and Roman gallery and other parts of the museum and was past president of the museum board.

Alan Parsons honed his leadership skills at Illinois, where he was president of his dorm and was named one of the 100 most active seniors. This lawyer and former Army Ranger has also been a leader among Illinois alumni, serving on the Board of Directors for the Alumni Association, as well as the U of I Friends of the Library Board and the Louisville Illini Club. ■

The 2014 LAS Alumni Award winners attended a college reception in their honor. Pictured are Peter Senter, Patrick Walsh, William Banholzer, Laura Bolton, Allan Campbell, and Alan Parsons.

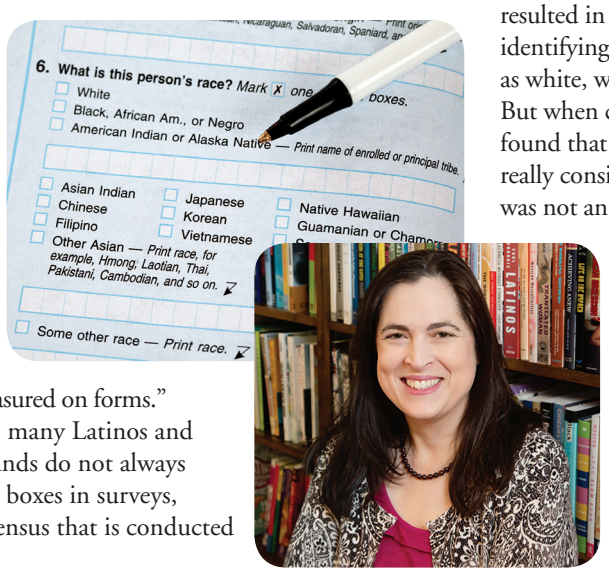
THINKING OUTS

Whenever **Julie Dowling** filled out forms for school while growing up in Fort Worth, Texas, she always had to pause when she reached the place where she was supposed to indicate her race.

Dowling is half Mexican and half Irish, but on forms she was asked to check only one box for her race. In Texas, the word "white" on forms was inevitably accompanied by "non-Hispanic" in parentheses next to it, so she knew that box was not for her. "Hispanic" was her only option.

This still made sense for Dowling because she identifies primarily as Mexican American. But for a friend of hers who moved to Texas from Florida, it was more complicated. This friend identified herself as both white and Cuban, but when she went into the DMV to obtain her new driver's license, the person behind the desk looked at her Spanish last name and declared, "You can't mark 'white.' You're Hispanic."

"It can be very confusing," says Dowling, now a professor of Latina/Latino studies at the University of Illinois. "In Florida, my friend could be both white and Latino, but this was not possible in Texas because of the way racial categories were set up. There is a lot of regional variation in how race is understood and measured on forms."



Julie Dowling and a sample from the 2010 U.S. Census form.

Across the country, she says, many Latinos and people of multiracial backgrounds do not always fit into the neat categories and boxes in surveys, including the United States Census that is conducted every 10 years.

With her Mexican/Irish heritage, Dowling says she has always been fascinated by how people identify themselves racially and ethnically, and she has done extensive research on racial identity for the past 15 years. Most recently, she was named one of 10 new members of the National Advisory Committee on Racial, Ethnic and Other Populations. She will be serving a three-year term on this 32-member committee, which advises the U.S. Census Bureau.

Racial identification on the U.S. Census has a long and tangled history. (See sidebar to learn about quadroons and octoroons.) Now, she says, the Census Bureau is considering the latest in a long line of changes to the racial identification question—a change she endorses.

Ever since 1970, the U.S. Census long form has had two questions dealing with race and ethnicity. First, there is a question asking people if they are "of Hispanic, Latino, or Spanish origin." A separate question then asks respondents to identify their race, but "Latino/Hispanic" is *not* listed as an option, even though several Asian national origins are included, such as Chinese, Japanese, and Vietnamese.

According to Dowling, research conducted by the Census Bureau during the most recent 2010 census revealed that many Latinos felt singled out by having their own separate question on the census—even though the question had been added decades ago to ensure that Latinos were counted.

Ironically, while some Latinos felt stigmatized, the research also showed that some European Americans thought the separate question gave Latinos preferential treatment. People of European descent had nowhere on the form where they could indicate their ethnic heritage, be it Irish, Scottish, Polish, or German.

Research also showed that the census form's question on race resulted in skewed results for the percentage of Latinos identifying as white. Roughly 50 percent of Latinos identified as white, while most of the other half indicated "other race." But when census workers followed up with a phone call, they found that many Latinos who identified as white did not really consider themselves white. Because "Latino/Hispanic" was not an option on the race question, they simply didn't have any better category in which they fit.

Dowling found similar results in her own research described in her new book, *Mexican Americans and the Question of Race.* She studied Latinos in Texas, county by county, and she discovered that 80 to 90 percent of Latinos in the counties bordering Mexico identified as "white" on the census—even higher than the 50-percent figure nationally. She also found that there was a big difference between how Latinos identify themselves *publicly* and how they identify themselves *privately.*

When she interviewed respondents, she found that privately many Latinos did not really consider themselves white. But publicly, many of them identified as white as a defensive strategy in response to the racial profiling and discrimination they face. They were saying, "I'm on this side of the border. I'm an American citizen, and I want to be treated as a citizen. So for many, it was more of a desire to be accepted. It is also a result of Latinos just trying to fit themselves into a box in the absence of a Latino racial option."

During the 2010 census, the Census Bureau tested out a new streamlined question that may better capture how Latinos identify, Dowling says. Experimental forms dropped the separate question for Latinos and offered only one question on race and ethnicity, breaking the categories into seven race or origin groups:

- White
- Black, African American, or Negro

IDE THE BOXES

By Doug Peterson

QUADROONS AND OCTOROONS?

The Changing Face of the U.S. Census

In 1890, the United States Census counted quadroons and octoroons.

Huh?

Such terms have vanished into the dustbin of history, but "quadroon" means one-fourth African and "octoroon" means one-eighth African.

These long-forgotten categories are just two examples of how keeping track of race in America is a complicated, ever-evolving process. Counting the number of Latinos is also a good example of how difficult the task can be, says Julie Dowling, University of Illinois professor of Latina/Latino studies.

Under the question in which people are asked to identify their race, "Mexican" first appeared on the U.S. Census in 1930—the same decade when there was even a "Hindu" racial category. However, Mexicans protested the addition of the Mexican category because "they wanted to be recognized as white," says Dowling. "They wanted to be accepted and have citizenship rights. This was a time where the best avenue for people to fit in was to claim whiteness."

Many also feared that being identified as Mexican on the census would increase the chances that as new immigrants they would be deported. In the 1940s, census data were used to identify Japanese Americans and put them in internment camps during World War II.

After protests, the category "Mexican" was dropped from the census in 1940, so the Census counted Latinos as white for the next couple of decades. But in the 1960s and '70s, things began to change once again. Mexican Americans and other groups now *wanted* to be counted so they could be included in federal programs that dealt with poverty and inequality. During this period, people also began to use the term "Hispanic" to cover all Latino groups, including Mexican, Puerto Rican, Cuban, Dominican, and more. Prior to the 1960s, Latino groups were viewed separately.

Meanwhile, the number of racial and ethnic categories on the census expanded decade by decade, but the Hispanic/Latino category was never added to the census question on race. Instead, a separate question was added to the long form in 1970, asking people if they are "of Hispanic, Latino, or Spanish origin."

But that too raised some problems, so the categories might be changing again.

Dowling points out that "some other race" is now the third largest racial group after white and black, and as the demographics shift, if the form does not change she says "other race" might just become the second-largest group on the 2020 survey.

"But we don't live in and have never lived in a black/white/other world," Dowling says. "There are lots of groups that deserve to be included. It's about giving people more options, not less options, to identify themselves." ■

- Hispanic, Latino, or Spanish origin
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Other Pacific Islander
- Other Race or Origin

The Census Bureau tested several formats, but the most popular one listed these seven categories, followed by a blank, in which people could indicate their specific ethnic group. For instance, they could write Mexican or Argentinian under Hispanic/Latino, Irish or German under white, or Mayan or Navajo under American Indian. Respondents were also told they can check more than one of these categories, so someone could check both white and Latino.

During the 2010 census, the new formats were tested with a half-million people. By adding "Hispanic/Latino" to the question on race, the percentage of Latinos identifying as white dropped from 50 percent to 9 to 16 percent (depending on the form). What's more, follow-up phone calls showed that Latinos who identified themselves as white on the new forms really did identify themselves that way in their daily lives, so she says the data are more accurate.

Testing of the new forms will continue as the 2020 census approaches.

Meanwhile, Latino families such as Dowling's continue to puzzle over forms. Her husband is Mexican American as well, and when their daughter was born in Illinois, the form for the birth certificate had no "Latino" or "other" option under race. The hospital staff said that Latinos go under "white" on the form. Dowling argued with them on this, but they refused to allow the question to be left blank. Something had to be marked, so they were forced to allow the hospital staff to identify them as "white."

Dowling says that as federal forms change to more accurately reflect a person's race or origin group, these changes will trickle down to affect forms at the state and local level—maybe even at hospitals.

The result?

"People will be counted in ways that are more meaningful," she says. ■

Creating

Katharine Hayhoe is one of the country's leading scientists and spokespeople on climate change, even being named one of *Time* magazine's 100 most influential people of 2014. But when she got married to fellow LAS alum Andrew Farley in 2000, little did she know that one of the first people she would need to convince of the reality of climate change would be her own husband.

Growing up in Toronto, Hayhoe says that before she came to the United States she had never met anyone who didn't believe in climate change, so discovering that her husband didn't accept it came as quite a shock. At the same time, however, she says, "I respected him, I knew his heart, and I knew he is an honest and sincere person."

She also knew her husband is highly intelligent; he received his PhD in applied linguistics from Illinois and was awarded an endowed professor's chair at Notre Dame University at the young age of 27. As Hayhoe points out, sociological research has shown that the greatest divisions over climate change are with the most scientifically literate people.

Photo by Ashley Rodgers, Texas Tech University.

Photo by MartinVoelker, Citizens Climate Lobby.

"So here is this person who understands data, understands the scientific method, who is an academic and researcher. I had to take his arguments seriously," says Hayhoe, an associate professor at Texas Tech University and director of their Climate Science Center.

After long discussions, she eventually convinced him of the reality of climate change, and they even co-wrote a book together, *A Climate for Change.* This was her first experience grappling over climate change with a skeptic, and she says it was the ideal way to learn how to communicate about the issue. Hayhoe certainly learned her lesson well because she has become a popular speaker on the topic, particularly in front of groups where skepticism runs high.

"When you dig to the bottom of it," she says, "the problem many people have with climate change is not with the science. The problem is that people believe climate change is not consistent with their ideological values, political values, or faith values."

As an evangelical Christian, Hayhoe is able to bridge this gap. Whenever she talks to a skeptical group, which is quite common in Texas, she begins by connecting with their set of values. For instance, when talking before Christian groups, she emphasizes caring for the poor, being a good steward of God's creation, and loving our neighbors. When she talks before a Rotary Club, she connects the issue of climate change to the group's "4-Way Test"—is it the truth, is it fair, will it bring good will, and will it be beneficial?

Once she makes this initial connection, then she tackles the science and fields the tough questions.

Hayhoe is a natural at combining roles as a scientist and educator because she had a strong role model growing up in Canada. Her father was a scientist, educator, and missionary in Colombia, South America. When they returned to Canada after a second stint in the field, her father served as the science coordinator for the Toronto Board of Education.

One of Hayhoe's earliest memories as a child was her father taking her to a park at night and showing her how to find the Andromeda galaxy with binoculars.

"I learned that science was the most interesting thing you could do in life," she says.

At the University of Toronto, Hayhoe focused on astronomy and physics, but an elective class on climatology caught her attention and led her to focus her senior year on atmospheric physics. When it came time to apply for graduate school, she was torn between astrophysics and atmospheric sciences. Initially, Illinois wasn't even on the radar, but she did some investigating and picked it as her tenth and final university at which to apply. Even though U of I

was something of an afterthought, when she visited Illinois and met Don Wuebbles, the new head of atmospheric sciences at the time, she was sold.

"As soon as I met Don and heard about the policy-relevant research he was doing in the areas of climate change and ozone depletion, I felt this is what I needed to be doing and where I needed to be," Hayhoe says.

At the U of I, she also met her husband at Intervarsity Christian Fellowship. And after receiving her master's degree in 1997, she did consulting work for several years (which she still does in the summer), and then she and her husband both wound up landing positions at Texas Tech. She earned her PhD in 2010, receiving it from Illinois while working at Texas Tech.

Her research focuses on developing and applying high-resolution climate projections to evaluate the future impact of climate change, and she has over 100 peer-reviewed publications. She also served as lead author of the Second and Third U.S. National Climate Assessments, and was an expert reviewer for the Nobel Peace Prize-winning Intergovernmental Panel on Climate Change.

Meanwhile, her outreach and speaking engagements have raised her profile considerably, appearing on most major networks, as well as Showtime's Emmy-winning climate change documentary, *Years of Living Dangerously.* In addition, she was awarded the American Geophysical Union's Climate Communication Prize.

Hayhoe says she believes there are two big reasons why climate change proponents and skeptics are at an impasse, and the first is that many scientists and educators believe the "knowledge deficit model" will convince skeptics. If people are not on board, the idea is to just give them more information. But as her experience with her husband and others demonstrated, more information will not work if the issue runs counter to a person's value system. That's why she always starts by connecting with their values.

The second problem is that because climate change is a collective issue—a "tragedy of the commons," she says—the solutions presented tend to be collective by their very nature. In other words, they are government solutions, even though a large portion of the country is strongly opposed to big government.

Hayhoe considers herself an agnostic when it comes to solutions. "Any solution is better than no solution, which is essentially what we have now," she says. However, because of the need to connect with the values of people on the right side of the political spectrum, when she responds to many requests to serve on boards, she tends to engage with organizations that offer more broad-based or free-market perspectives, such as the Energy and Enterprise Initiative or Citizen's Climate Lobby.

Hayhoe speaks only where she is invited, but her favorite invitation is from groups that are skeptical but willing to listen. "I sometimes hear from people who say, 'You know we've never had somebody talk to us about climate change and we weren't sure about this, but I talked to so and so at the Baptist college where you spoke last year, and they said it would be safe to invite you. So we're going to try it.'"

When she first appeared on a news program on Moody Bible Radio, the producer emailed her a long list of concerns in advance—concerns that she runs into everywhere she goes these days. But the show went so well that they asked to have her back regularly.

Most talks go this way, although Hayhoe says one of her toughest audiences was before a group of petroleum geologists in Midland, Texas. But even then, she felt she was able to sway many in the audience.

"I think everyone has all the values they need to care about climate change," she says. "It's just a matter of connecting those values to the issue." ■

the Right Climate

By Doug Peterson

Climate Change Advocate Finds Common Ground, Even with Skeptics

A SOLar

When **Patrick Walsh** first arrived in India with prototypes of an LED solar-powered lantern, his goal was to simply demonstrate that they could bring light to isolated areas in developing countries. So he was shocked when a man in India came up to him and asked to buy one of his jerry-rigged prototypes.

Patrick Walsh (BA '07, economics and BS '07, engineering physics) received the 2014 LAS Recent Graduate Award.

"I was incredulous," says Walsh, a 2007 LAS alumnus. After all, his prototype was little more than a PVC tube that contained a battery and some electronics and had an LED light attached. Walsh sold the man a prototype, but he also went on to start a company that produced much more finely designed solar-powered lanterns. The company, Greenlight Planet, has exploded into a wildly successful business that brings light to areas of developing countries that don't have electricity available to them.

Greenlight Planet sold a million solar lanterns in 2013 and topped that number in 2014. The solar lantern replaces the more dangerous and expensive kerosene lanterns used in developing countries. For this unique achievement, Walsh is winner of the 2014 LAS Recent Graduate Award.

"Two billion people in the developing world lack electricity and must use oil lamps for home lighting," Walsh says. But the fuel for kerosene lamps can cost up to 10 percent of a person's income in these countries, he points out. In addition, kerosene lamps release greenhouse gases, and breathing the fumes can be hazardous to your health.

And then there is the fire risk.

"Kerosene lamps are not sealed, so if you tip one over, you've got a flame and spilled fuel," he says. "It's common for children to tip over lamps and get burned. In every village, somebody has a story about a kerosene lamp fire."

Solar-powered lanterns solve all of these problems.

Walsh grew up in Riverside, Ill., and came to the University of Illinois as a double major in physics and economics. He says it was happenstance that he was looking for a one-credit-hour class and stumbled across a survey course called "International Dimensions of Engineering," taught by Professor Bruce Litchfield.

The class changed his life, Walsh says, for it made the idea of studying abroad appealing and it introduced him to the group Engineers Without Borders. Walsh joined Engineers Without Borders and says, "I was hooked from the first meeting. For the first time, I was lying awake at night thinking about what I was working on."

In the summer of 2005, after Walsh's sophomore year, he and several other Illinois students went to Orissa, India, to set up a generator and several pieces of processing equipment. But during the planning stage, they discovered that Orissa's school was a quarter of a mile down the road, too far to receive electricity from the generator.

"It struck me that there was a new product on the shelves in the United States at the time—solar-powered garden lights," he says. "They're $3 apiece and you stick them in your lawn. They have a solar panel on top and an LED light," so he thought people in Orissa might be able to use this kind of light in their school.

When Walsh returned to India in December 2006, he brought along supplies to build prototypes of solar-powered lanterns, and they became a big hit. Therefore, he steadily worked on the idea of commercially producing the lanterns, and during his senior year he no longer had to work alone, for he was joined by U of I engineering students Anish Thakkar and Mayank Sekhsaria—the other two co-founders of Greenlight Planet. Walsh's design garnered the 2008 Lemelson-Illinois Student Prize for innovation, a $30,000 award that allowed him to set up large-scale

Photos courtesy of Greenlight Planet.

ODYSSEY

By Doug Peterson

manufacturing of the lamps.

Today, the company has over 700 employees, not counting its 6,000-plus "micro-entrepreneurs." These micro-entrepreneurs are villagers recruited to sell the product in their own communities—mostly in India and Africa, but also in Latin America and the Philippines.

Walsh says he saw this kind of grass-roots entrepreneurial system in action the very day he sold that first prototype. When he asked the man why he wanted to buy a prototype, the man responded by saying that he wanted to turn around and sell it to another villager.

"But it was years later that Anish [Thakkar] decided to focus on that model as the core of our business," says Walsh.

The solar-powered lanterns are recharged during the day by plugging them into the small solar panel, and it's enough to supply light throughout the night. If it is a cloudy day and you do not get a full charge, you can put the lantern on the lowest of three settings, which emits less light, and still make it through the night.

Greenlight Planet's basic lantern emits three times as much light as a kerosene lantern, while the newer models give out as much as 15 times the light of a kerosene lantern. The two newer models even allow people to use the device to charge their cell phones, which are ubiquitous even in the most isolated regions of the world.

"This has been a real odyssey for us," Walsh says. "Light is something we take for granted, but it's a prerequisite for modern life." ■

"LIGHT IS SOMETHING WE TAKE FOR GRANTED, BUT IT'S A PREREQUISITE FOR MODERN LIFE."

Photos courtesy of Greenlight Planet.

Photo courtesy of RIC Sports.

Taking On

By Doug Peterson

Ella Chafee was maneuvering around an opposing player on the congested basketball court when her foot suddenly became entangled in the wheels of an opponent, and it was twisted at an unnatural angle. The next thing she recalled: intense pain.

When she let out a scream, her coach called a timeout, and after she wheeled off the court, she told him her foot might be broken. The coach asked if she could go back in the game if they put ice on it, and Chafee agreed. So the coach reached for the handiest item at a wheelchair basketball game—duct tape—and she played the rest of the game with a bag of ice taped to her foot.

Chafee took one for the team, which has been the story of her athletic career as a pioneer in women's wheelchair sports. By putting her sport, her team, and other women ahead of herself, she blazed the way for women in wheelchair sports. In addition to competing in some of the earliest Paralympics, this LAS alumna and Oak Lawn resident helped to create the women's division of the National Wheelchair Basketball Association, earning her a recent induction into the Wheelchair Basketball Hall of Fame. Chafee is one of the few women to be inducted into two Halls, for she is also a member of the Hall of Fame for Wheelchair and Ambulatory Sports USA.

In basketball, she reached the Hall primarily on the basis of leadership rather than dominant abilities, says Bob Szyman, a U of I alumnus who coached her and spoke at her induction into the Wheelchair Basketball Hall of Fame.

"You can search all kinds of data tables, and you won't find her statistics that stand out in basketball," Szyman says. "Her legacy is how she promoted the sport to other women and helped them achieve high standards of performance."

Chafee contracted polio in 1951 when she was six years old and the country was in the grip of a terrifying epidemic. Polio left her without the use of the lower part of her body. In the 1950s, there were not many opportunities for girls and women in organized sports, let alone those with disabilities, but her parents encouraged her to take swimming lessons.

"At that time, wheelchairs were big clunky things," Chafee says. "It wasn't until I got down to the U of I in 1963 that I discovered much to my surprise that there were sports for those with disabilities. I had never heard of it before."

The U of I was known nationally as a pioneer in accessibility and wheelchair sports, and when Ella connected with the campus Rehabilitation Center, the physical therapist Chuck Elmer encouraged her to swim competitively. Track soon followed.

In the early 1960s, women in wheelchair track could only race in the 50-yard dash because the thinking back then was that "the poor dears would just crumble away and faint if they had to race any farther," says Ian Chafee, Ella's husband of over 40 years. "The women obviously were ticked off about that, and they kept agitating for longer distances."

When longer distances were offered, Ella leaped at the chance. In fact, she says she signed up for every possible wheelchair sport, just to prove there was interest. Her roommate at Illinois, Hope Chafee (who would later become her sister-in-law), was also in a wheelchair because of polio; together, Ella and Hope tried to do it all.

"Every time a new event opened up for women, we would do it, whether we liked it or not," Hope says.

Today, wheelchair athletes are highly specialized, Ian says, but back then, athletes like Ella and Hope did swimming, track, basketball, archery, fencing, shot put, discus, and javelin, to name just a few. Ella also recruited as many other women as possible into wheelchair sports.

"She was always a bit of a missionary about athletics," says her husband Ian. "She was big on getting other people involved early since she had lost 10 years of competition because she didn't know about wheelchair sports."

In Tokyo in 1964, Ella and Hope both medaled at the second Paralympics, with Ella coming home with a silver and bronze in swimming. Ella was also part of the gold-medal 4 x 100-meter relay in the 1968 Paralympics in Tel Aviv, and after a long gap she came back to the Paralympics in 1996 in fencing.

Photo courtesy of the University of Illinois Alumni Association

Ella graduated from U of I with her bachelor's degree in Spanish in 1967 and began working for the Social Security Administration in Chicago. Meanwhile, she and Hope continued to swim at a motel pool close to the Chafee house, and Ella says she would spend the weekends with Hope's family.

That's when she started noticing Hope's older brother, Ian.

"I didn't really notice Ella at first," Ian says. "She was just my sister's little friend." And "little" is right because Ella is only five feet, two inches tall. But things started to change in

e for the Team

Alumna's Pioneering Spirit Earns Her Entry into Two Halls of Fame

their relationship when Ian drove Hope and Ella to Champaign for a wedding.

"She tormented me the whole way down to Champaign, hitting me in the back of the neck," Ian says. "She's lucky I didn't drive off the road."

Hope says she encouraged their relationship and even tried to help it along by leaving the two alone whenever Ella visited their family. Ella and Ian married in 1971, and Ian—who is not in a wheelchair—suddenly found himself drawn into the world of wheelchair sports.

When he innocently told Bruce Karr, a leader in wheelchair basketball and U of I alumnus, to get in touch if he ever needed help, Karr pounced on those words, and Ian soon found himself as equipment manager and mechanic for the Chicago Sidewinders, a men's basketball team. Ian became known for his wheelchair innovations, such as an axle relocator, which shifted the axle beneath the seat, giving athletes a more powerful stroke on the wheels.

"Wheelchair basketball has a lot of crashing and banging," says Ian, who went on to found his own wheelchair service company. "Wheels get damaged, hand-rims broken, spokes torn out." He became the wheelchair equivalent of a pit-stop specialist in auto racing and could change a tire in the span of a basketball time out.

In the 1970s, Ella and Ian had two children, but even with the demands of motherhood she wanted to keep competing. There was no wheelchair basketball for women in the Chicago area, so Ella and Hope filled the gap by founding the Chicago Charmers. One year later, the Rehabilitation Institute of Chicago (RIC) became the sponsor, and the team changed its name to the RIC Express. Finally, when they drew the support of the WNBA team, the Chicago Sky, they underwent one more name change and became the RIC Chicago Sky.

Throughout her basketball career, Ella played point guard as a Class 1 player. At that time, there were three classes, with Class 1 being players with the greatest disability, and Class 3 being players with the least disability. The total points of the five players on the floor could not exceed 12. In other words, a team could play with three Class 3 players, one Class 2 player, and one Class 1 player for a total of 12.

Although not a major scorer, Ella is believed to have been the first woman to sink a three-point shot in a national wheelchair tournament. This milestone came against a powerhouse college team from the U of I, and the Illinois coach was furious that Ella was fouled on the shot, setting up a four-point play, Szyman says.

Ella was also highly maneuverable and could cause grief when she defended younger, stronger athletes. Most notably, there was a game when the 40-something Ella kept using her wheelchair to legally block another team's top player, taking her completely out of the game. Finally, in frustration, the younger player shouted, "Get this old lady off of me!"

"My wife considered that a compliment," Ian says.

He also says that Ella "is probably one of the most optimistic and cheerful people I know. She's one of those people who wakes up in the morning, throws open the window, and says 'Good morning, world!'"

This infectious spirit is what helped her draw so many top women players into the game, he says. She continued to play well into her 50s, and her leadership was so valued that she was named captain of the 2005 RIC Express team that won the national championship, even though she wasn't a starter.

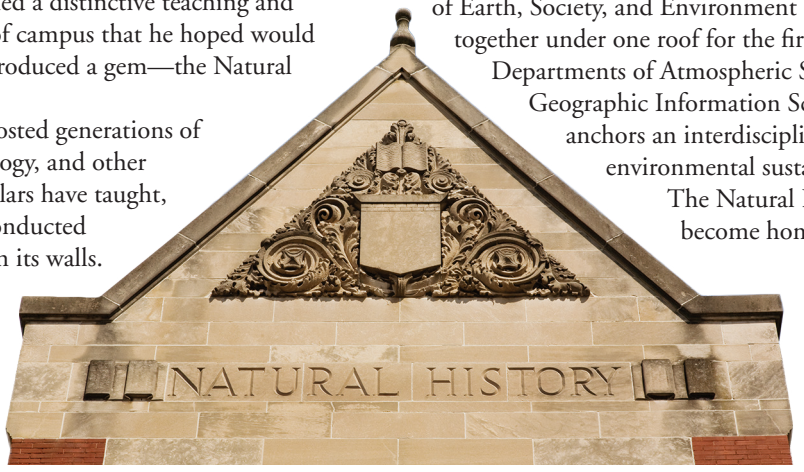
Of all of the sports in which she competed, Ella came to love wheelchair basketball the best because she thrived on team chemistry. "When you win together, you win together. And when you lose together, you lose together," she says. "It's that team thing. I love it." ■

THE NATURAL HISTORY BUILDING:

Renovating a Lan

In the late 1800s, with the University of Illinois facing growing enrollments and limited space, renowned University architect Nathan Ricker designed a distinctive teaching and research building at the heart of campus that he hoped would endure through the ages. He produced a gem—the Natural History Building.

This historic structure has hosted generations of students studying geology, biology, and other disciplines. Distinguished scholars have taught, established laboratories, and conducted groundbreaking research within its walls.



But designs and infrastructure that worked for the 19th and 20th centuries do not meet today's teaching and research demands. The Natural History Building has reached a critical juncture and it must evolve dramatically to continue to serve our campus. Thus, the University has begun a $70 million renovation that preserves the building's historic exterior while transforming the interior into a new world of state-of-the-art classrooms, laboratories, and meeting spaces.

A Vision

The renovation of the Natural History Building will create a dynamic education and research center. It will house classrooms, laboratories, and offices for current and future generations of geologists, geographers, and atmospheric scientists, and will be the center for biological and environmental education for students from across campus.

The 148,000-square-foot landmark will be transformed into a model for modern higher education with state-of-the-art facilities, while maintaining the charm of the architectural details that led to its inclusion on the National Register of Historic Places. The work will be environmentally sound with every effort made to ensure that the building earns LEED certification by the U.S. Green Building Council.

Flexible Design

The Natural History Building is being renovated with flexible classroom and laboratory layouts to accommodate the latest methods in learning and research while incorporating advanced technology. Floor plans, walls, air handling, electrical grids, and other infrastructure will be adaptable so that in the coming decades the building can change with the times at minimal expense.

A Foundation for Modern Teaching and Research

When the renovation is complete, all programs within the School of Earth, Society, and Environment (SESE) will be brought together under one roof for the first time. SESE includes the Departments of Atmospheric Sciences, Geography and Geographic Information Science, and Geology, and also anchors an interdisciplinary undergraduate major in environmental sustainability.

The Natural History Building will also become home to teaching programs in the School of Integrative Biology (SIB) and the Integrative Biology Honors Program. SIB includes the Departments of Animal Biology, Entomology, and Plant Biology.

Additionally, this historic building will continue to host classes from disciplines across campus, meaning that the innovations in space and teaching methods in this renovation will also benefit thousands of Illinois students outside of SESE and SIB.

Spectacular Spaces

The extensive renovation will create cutting-edge spaces that inspire collaboration. Here are some highlights of the new design:

- Innovative project-based classrooms promote interaction and discussion between professors and students
- A visualization studio where researchers can perform tasks such as analyzing satellite weather data to look into the eye of a hurricane, or analyzing satellite space mission data with NASA
- Specialized teaching facilities where students can learn how to build analytical instruments that can be used for microscopic analysis of earth materials, visualizing big data using geographic information systems (GIS), and other projects
- A biology honors suite that will build on a long tradition of excellence
- Two vibrant community hubs including the remarkable vaulted chamber on the third floor and the beautiful open space off of the Green Street entrance where students can meet, study, and exchange ideas
- Hallway display spaces where specimens, maps, and other visuals will be used for teaching and public viewing
- Numerous seminar rooms for peer learning and small group discussions
- State-of-the-art laboratories for advanced courses and specialized research in areas including geophysics, geochemistry,

dmark

sedimentology, earth materials, geomicrobiology, and remote sensing, to name a few
- Computer labs where students work with the latest geographic and remote-sensing data, model the Earth System, and explore mathematical models of biological processes
- Smart lecture halls with the latest IT links, and;
- Modern offices designed to foster interdisciplinary collaboration

Modern, Diverse Learning and Exploration

Students and faculty using the renovated Natural History Building will be dedicated to studying both the physical and biological components of our planet. In its labs, researchers will explore how rocks, microbes, plants, soil, animals, oceans, lakes, landscapes, the atmosphere, and humanity all interact.

Geologists and atmospheric scientists will explore diverse topics—groundwater, weather, surface water, sediments, hydrocarbons, landscapes, climate, and the Earth's interior. Students in geography and geographic information science will focus on understanding the relationships between societal changes and the natural and built environments, and will use geospatial technologies for mapping and spatial analysis.

Biology students will gain skills to examine challenges such as the outbreak of a new infectious disease or the causes and consequences of declining biodiversity. They will combine an understanding of basic natural history with new technologies that will bring breakthroughs in fields such as genomics. The holistic approach of the School of Integrative Biology will prepare students to tackle complex problems ranging from understanding evolutionary processes to developing biofuels.

Practical Skills for the Real World

Students in the renovated Natural History Building will have the opportunity to perfect practical skills that lead to productive careers. Some will learn how to explore for energy resources, remediate contaminated groundwater, or predict the weather. Others will gain the background they need to enter the world of health care, develop policies for a sustainable future, or use GIS to manage massive amounts of spatial data. ■

Historic Building Highlights

- **Dedication:** November 16, 1892. The building was designed by Illinois alumnus Nathan Ricker, the first architectural graduate in the U.S.
- **Additions:** Additions to the south and west portions of the building occurred in 1908. The building attained its present size in 1923.
- **Fires:** The building has survived two blazes, one sparked by lightning in 1897, and one during construction work in 1990.
- **National Register of Historic Places:** Added to the historic register in 1986.
- **Museum of Natural History:** Once occupying the vaulted hall in the center of the building and much of the fourth floor, the museum closed in 2001. Its fossil and rock specimens remain in the Natural History Building.
- **Closure of the 1908 Addition:** Discovery of structural weaknesses in floors led to the closure of 40% of the building in 2010. ■

Join Us in Building the Future

This is a pivotal moment for the future of the Natural History Building. University funding will cover some of the renovations, but to achieve all of the building's potential we need your help.

Every gift is important. Numerous naming opportunities are available including:

- SESE and SIB student hubs
- Biology honors suite
- Project-based learning centers
- Display areas and collections
- Seminar rooms and classrooms
- Lecture halls
- Research laboratories
- Specialty laboratories
- Faculty or graduate student offices
- Department head suites

Be a part of this historic undertaking to elevate this icon to its full potential. Your support will create a gem on the Illinois campus that will shine for years to come.

FOR MORE INFORMATION, please contact the LAS Office of Advancement at (217) 333-7108 or lasgifts@illinois.edu. ■

‘One Glance into the Beautiful Land of the Past’

By Dave Evensen

Renovation of Natural History Building Unveils a Forgotten Time Capsule

Amid the excitement about the future of the Natural History Building, there’s more reason to be intrigued by its past. Before the renovation began, architects discovered the existence of a copper box filled with items that were ceremoniously preserved within the northeast corner of the building’s foundation some 122 years ago.

No decision has been made yet whether to extract the box, but records of the March 9, 1892, cornerstone ceremony on file at the University of Illinois Archives provide clues of its contents. It contains documents, coins, newspapers, a letter, and other things, including, mysteriously, the photo of a young woman whose significance is unexplained. (See box on page 13 for complete list of items.)

Her name, “Besse” Wilder, shows up on a handwritten note of the box’s contents, and through a process of elimination using student records, Archives staff have concluded that she is Elizabeth Cutler Wilder, a Champaign, Ill., native who studied English and modern languages at Illinois in the early 1890s but did not graduate. The reason her photo was selected for the time capsule is unknown. (See more about Besse in the following story.)

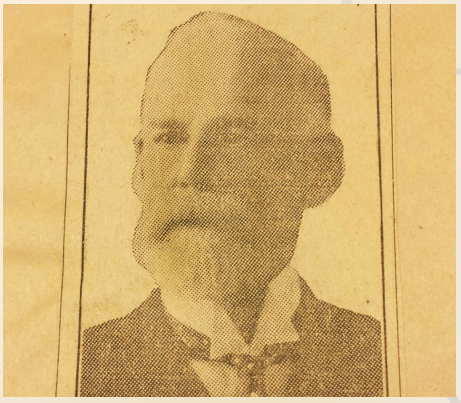
According to a story in the *Illini* (later named the *Daily Illini),* the cornerstone ceremony was well attended, filling a chapel near the future site of the Natural History Building. The board of trustees, faculty, and others were on hand as the University band provided music. Dr. T.C. Chamberlain, president of the State University of Wisconsin, delivered a speech called “The Moral Influence of Scientific Study.”

The man in charge of presenting the box was James H. Brownlee, a charismatic and beloved professor of oratory and rhetoric who was a Kansan drill sergeant during the Civil War, and wounded in action. He was also serving as mayor of Urbana, Ill., at the time of the ceremony. (See more about Brownlee in the following story.)

According to the account in the *Illini,* his letter for the box reads as follows:

“To him that shall read these lines, greeting: I, James H. Brownlee, of the University, write to say that you will do well to avoid the error of believing that the past time was devoid of light, sweetness, and joy. You are cheered by many comforts we did not have, but you cannot enjoy your work more than we did ours. When you read these lines the hand that wrote them will long since have crumbled into dust. Vouchsafe, then, one glance into the beautiful land of the past, and drop a tear for your dead correspondent, James H. Brownlee.” ■

People of the Time Capsule



What We Know (and Don’t Know) about Two People Whose Memories Were Preserved within the Walls of the Natural History Building

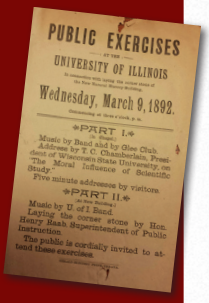
It’s too early to say if the University of Illinois will even try to open a nearly forgotten, 122-year-old cornerstone box enclosed in the foundation of the Natural History Building, but already its discovery has opened a window on life on campus in the late 19th century. It has also brought life back to one of the most colorful characters of that era—while creating a mystery around another.

Among the contents of the box (a handwritten list was found in the U of I Archives after architects discovered the capsule’s existence through old newspaper

Contents of the Cornerstone Capsule

According to records on file at the University of Illinois Archives, contents of the box embedded in the foundation of the Natural History Building include:

- University of Illinois Catalogue, 1890-91
- Laws of the U.S. and Illinois pertaining to the University
- Roster of Military Battalion
- Program of Exercises
- Copies of *Herald, Gazette,* and Quincy newspapers*
- *Illini* from January 16, 1892
- Rules for government of students
- 50-cent and 10-cent coins dated 1892
- Picture of Besse Wilder
- Three circulars of the University of Illinois
- Student's handbook of Christian Association
- Invitation to Chicago Club banquet, 1892
- Letter from Professor James H. Brownlee
- Photo of the new building


PUBLIC EXERCISES
UNIVERSITY OF ILLINOIS
Wednesday, March 9, 1892.
PART I.
PART II.

*The exact newspapers are unclear from the listing. In 1892, these area publications existed: *Quincy Daily Herald, Quincy Daily Journal, Champaign Daily Gazette.*

clippings) is a photo of "Besse" Wilder, whose significance is not known. Through a process of elimination using student records, Archives staff have concluded that she is Elizabeth Cutler Wilder, a Champaign, Ill., native who studied English and modern languages at Illinois in the early 1890s but did not graduate.

Little else is known about her. Champaign County, Ill., records show that she was the daughter of Charles and Martha Wilder, and we know that on June 13, 1900, she married Louis Dixon Hall, who earned bachelor's and master's degrees in agriculture at Illinois in 1899 and 1906, respectively. He also served for a while as an assistant professor of animal husbandry at Illinois, though they eventually settled in Washington, D.C., and raised three children, named Dixon, Charles, and Elizabeth.

There is no photo of Ms. Wilder on record—aside from what may be in the cornerstone box—and no record of why her photo was selected for the box. She is not listed in any Illinois alumni directory, except as the wife of Mr. Hall.

Other documents and newspaper blurbs reveal that she was a member of the Young Women's Christian Association and, later, possibly studied in Natural History Building, but there is no indication why she is the sole person whose image was preserved in the cornerstone.

Much more is known of James H. Brownlee, who was the star of the show on March 9, 1892, when the cornerstone was ceremoniously buried. Records reveal Brownlee as a charismatic professor of rhetoric and oratory who believed in the power of words so strongly that by one firsthand account it saved him from his would-be deathbed.

There were music and speeches the day they buried the cornerstone, but Brownlee was at the center of attention as he presented the items for the copper box. Included among them was a letter to the future he wrote which struck a chord when it was made public.

"To him that shall read these lines, greeting: I, James H. Brownlee, of the University, write to say that you will do well to avoid the error of believing that the past time was devoid of light, sweetness, and joy," the letter read, according to the student newspaper, *The Illini.* "You are cheered by many comforts we did not have, but you cannot enjoy your work more than we did ours. When you read these lines the hand that wrote them will long since have crumbled into dust. Vouchsafe, then, one glance into the beautiful land of the past, and drop a tear for your dead correspondent, James H. Brownlee."

People were drawn to Brownlee. He had served in the Civil War, both as a private in the 17th Regiment Kansas Volunteer Infantry and as a drill sergeant for the 10th Regiment Kansas Infantry. He served as superintendent of several school districts prior to arriving on campus in 1885, and by 1891, in addition to his role as professor, he was mayor of Urbana (1891-1893).

He was wildly popular with students, the relationships with whom he cherished for the rest of his life. For years after his departure from Illinois in 1893, Brownlee remained in contact with former students, who invited him to class reunions and even offered to pay his fare and accommodations.

One of the more remarkable stories about Brownlee was retold by his youngest daughter, Mary, who provided the account a half-dozen years after her father died, as the University of Illinois set up a symposium in his honor.

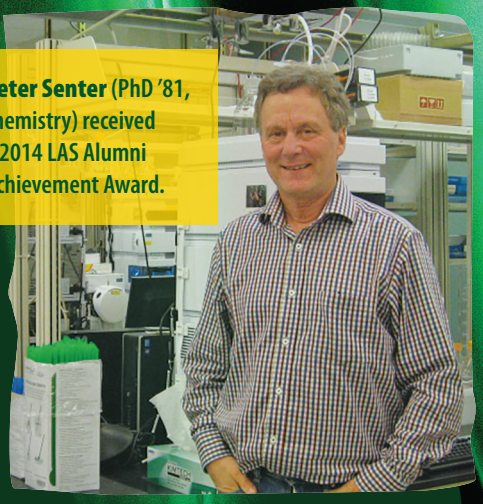
The story occurred prior to his death, when Brownlee was stricken with partial paralysis that his family blamed on an old Civil War wound. Sometime in 1915, when he was just shy of 70, his condition grew so dire that doctors declared he was dying. Brownlee's breathing became fainter and fainter, Mary recalled in a letter to friends, until his two daughters took his hands at his bedside and implored him not to die.

"He rallied and said, 'And Pharaoh dressed a dream and behold he stood by a river,'" Mary wrote. "You will probably recognize this as a quotation from Genesis 41-1. He loved that story of Joseph in the King James version and knew it by heart."

Indeed, with those words Brownlee did rally. He grew stronger by the day, and he lived another nine years. ■

Survi

By Doug Peterson



Peter Senter (PhD '81, chemistry) received a 2014 LAS Alumni Achievement Award.

Other than Zohn, a former professional soccer player, won the third season of the *Survivor* reality television series in 2002, but his greatest survival battle was yet to come, as he was diagnosed with Hodgkin's lymphoma in 2009. When Zohn's cancer returned in 2011, a new drug had just been approved—Adcetris—and he credits it with helping to knock his cancer into remission.

Peter Senter, an LAS alumnus in chemistry, led the team at Seattle Genetics that did the research to bring this landmark drug into the market just months before Zohn's diagnosis. For this and other work on novel cancer-fighting drugs, Senter is a 2014 LAS Alumni Achievement Award winner.

Senter grew up in the San Francisco area, and he originally set his sights on music. He played several brass instruments, guitar, and piano, and performed in rock bands in the Bay area, but he says it became obvious there were many more talented musicians out there. So he switched to another of his passions—chemistry.

After finishing his bachelor's degree in biochemistry at Berkeley, he was drawn to Illinois because, as he puts it, "the University of Illinois was on the radar of everyone who was going into chemistry. The department is phenomenal."

Senter finished his PhD in chemistry at Illinois in 1981, and during his years at U of I he continued to dabble in music, playing in a balalaika orchestra that had just been organized on campus.

After doing postdoctoral work at the Max Planck Institute in Germany, he took a position at the Dana-Farber Cancer Institute in Boston in 1983. He also held positions at Bristol-Myers Squibb, working in a new, promising area of cancer treatment—the use of monoclonal antibodies to fight cancer. When he started out, he says he didn't even know what a monoclonal antibody was and had to look it up. Monoclonal antibodies are obtained from cloned cell lines and can be highly specific for antigens of interest, such as those expressed on the outer membranes of cancer cells.

"I got into the field at a relatively early stage," he says. "In fact, maybe I got into the field too early because many of the technologies necessary to make antibodies work against cancer were not available at the time."

However, he and others still managed to make breakthroughs in the early years and laid the foundation for the emerging technology. They identified novel targets on cancer cells and hunted for antibodies that aimed at those targets. Today, about 12 different antibodies have been clinically approved to treat cancer, including breast cancer, non-Hodgkin's lymphoma, and certain head and neck cancers.

While many antibodies display high levels of specificity for cancer cells, few of them cause the cells to die, Senter says. Because of that, significant interest has surrounded the possibility of enhancing antibody activity by attaching highly potent drugs to them with linkers that allow the drug to release within tumor cells.

Senter focused his attention on these "antibody drug conjugatates" (ADCs) at a Bristol-Myers Squibb laboratory in Seattle. However, when Bristol-Myers Squibb decided to move this research site to the East Coast in 1998, 10 members of the team, including Senter, chose to remain in Seattle and continue their work. They focused their attention on details for ADC optimization, such as the choice of appropriate drug payloads, novel linker technologies, how to couple the drugs to the antibodies, and how to effectively and safely use the new ADCs for therapy.

Seattle Genetics blossomed into a company of over 700, and is now the biggest biotechnology company in the Seattle area. Much of the growth happened as they ramped up for the release of their first ADC drug, Adcetris, which was approved in 2011.

Biotech companies often go for large patient populations with unmet medical needs, but Seattle Genetics decided to go after Hodgkin's lymphoma, a disease with a small patient population that "had been completely ignored by the pharmaceutical industry," Senter says. Hodgkin's lymphoma is the most common cancer among teenagers between the ages of 15 and 19.

Today, Adcetris has been approved for use in over 45 countries, and it's also being used to treat anaplastic large-cell lymphoma. Adcetris uses an antibody to deliver a potent, totally synthetic drug (monomethyl uristatin E) that acts against tubulin in tumor cells. When the drug blocks tubulin polymerization, the cell's cytoskeleton is damaged and so is its ability to divide—the cancer cell then dies.

A key element to the process are the "linkers" used to attach the anti-cancer drug to the antibody, and Senter says their linker technology was inspired by the work of U of I chemistry professor John Katzenellenbogen. Using antibodies to deliver drugs to tumors is among a growing number of targeted therapies that kill cancer cells without obliterating nearby healthy cells.

"I think the days when oncologists administer general toxins that barely discriminate normal cells from tumor cells are numbered," he says. "Targeted therapies for cancer treatment are the wave of the future."

In honor of his work in developing Adcetris, Seattle Genetics named Senter as its only Distinguished Research Fellow. Meanwhile, the testimonies of other patients who benefited from Adcetris continue to come in. Senter says he met a young mother of two children for whom traditional chemotherapy failed while Adcetris worked, saving her life.

According to Senter, a young woman who contracted Hodgkin's lymphoma in high school also comes by the company to talk every so often. Her cancer was not sensitive to chemotherapy, "but she got on our drug and has had an amazing response. It's extremely gratifying." ■

Growing Support for the Scholars

A Lincoln Hall Scholarship Program Has Multiplied in Size since the Building Renovation

By Dave Evensen

With the reopening of Lincoln Hall more than two years behind us, an initiative tied to the renovation grows more significant every day. The Lincoln Scholars program has so far provided financial assistance to 50 LAS students to help complete their studies.

Funded mainly through donors to the Lincoln Hall Excellence Fund, the scholarship program selected its first nine Lincoln Scholars in fall 2012. It's been growing ever since, providing assistance to students with unmet financial need and good academic standing so they can attend the U of I.

Barbara Wilson, dean of the College of LAS, says the scholarship program is fundamental to the college's mission as part of a public, land-grant university.

"The rising costs of attending college are of utmost concern to the College of LAS. We want to ensure that we are accessible to everyone," Wilson says. "The Lincoln Scholars program has been central to our efforts to bring good students here who otherwise may be deterred by their financial situation."

Through support tied to the Lincoln Hall renovation, including donations, purchases of courtyard pavers and benches, pledges and deferred gifts, and naming opportunities, including those for theater seats, the theater itself, the east entryway, and classroom and office spaces, the College of LAS has raised more than $4.4 million for the Lincoln Scholars program. The goal is $10 million.

Jim (BS '82, biology; MD '86, medicine) and June (BS '84, biology; MBA '92) Nikoleit are strong supporters of the Lincoln Scholars program. June says that they remember studying many hours in the landmark building, and were thrilled to see it renovated.

"We feel that by providing financial support to the future generation we can continue to assure that all deserving students will have the opportunity to access the wealth of higher learning from this university," June says. "The University of Illinois provides the necessary tools for hardworking students to excel in this world. We feel blessed to have the opportunity to make a difference in someone's life."

Money raised for the program is placed in an endowment to provide scholarships without end. Lincoln Scholars receive $5,000 per year under the program, from their freshman year until they graduate. Lincoln Scholars are selected for their strong academic record as well as their financial need.

"We are ever grateful to those friends of the college who have supported this initiative," Wilson says. "As if the success of students already in the Lincoln Scholars program isn't enough reward, we are laying the foundation for a program that will open doors to countless students for years to come." ■

AROUND THE COLLEGE

Illinois Program for Research in the Humanities Receives $2 Million Mellon Grant

The Illinois Program for Research in the Humanities (IPRH) has been awarded a $2,050,000 grant from the Andrew W. Mellon Foundation to create research groups in three emerging areas in the humanities.

The grant will support research by Illinois faculty and students in the areas of bio-humanities, environmental humanities, and legal humanities. The three research areas reflect strengths at Illinois, says Dianne Harris, director of the IPRH and a professor of history.

"We were able to include in the grant application a long list of faculty with scholarly expertise in all three of these areas to show we could create strong research groups," Harris says. "We have a history over the past decade of seeing groups in the humanities doing really amazing cross-disciplinary work in those realms of inquiry."

Harris says the three research areas also align with priorities outlined in the campus strategic plan—health and wellness, energy and the environment, and social and cultural understanding. ■

Berenbaum Awarded National Medal of Science

University of Illinois professor of entomology **May Berenbaum** was awarded the National Medal of Science, the nation's highest honor for achievement and leadership in advancing the field of science.

The National Medal of Science was created in 1959 and is awarded annually to individuals who have made outstanding contributions to science and engineering, according to the White House Press Office.

"Professor Berenbaum's work has fundamentally changed what we know, how we study, and how the public understands the role of insects in nearly every aspect of human life and development," says Phyllis M. Wise, chancellor of the Urbana campus.

Berenbaum, a Swanlund Chair and the head of the Department of Entomology, has been a U of I faculty member since 1980. Her research, which studies the chemical mechanisms underlying interactions between insects and their host plants, including the detoxification of natural and synthetic chemicals, has produced hundreds of peer-reviewed scientific publications and 35 book chapters.

She also created the Insect Fear Film Festival, now in its 32nd year on campus. The festival engages and entertains hundreds of viewers each year with feature-length films and shorts, commentary on the films, an insect petting zoo, and an insect art contest. ■

Study of Ancient Dogs in the Americas Yields Insights into Human, Dog Migration

A new study suggests that dogs may have first successfully migrated to the Americas only about 10,000 years ago, thousands of years after the first human migrants crossed a land bridge from Siberia to North America.

The study, which looked at the genetic characteristics of 84 individual dogs from more than a dozen sites in North and South America, is the largest analysis so far of ancient dogs in the Americas.

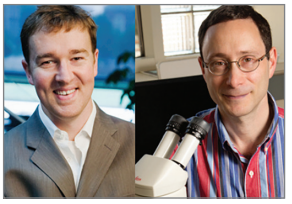
Their 11,000- to 16,000-year association with humans makes dogs a promising subject for the study of ancient human behavior, including migratory behavior, said Illinois graduate student **Kelsey Witt,** who led the new analysis with anthropology professor **Ripan Malhi.**

The Illinois team analyzed genetic signatures of diversity and relatedness in a hypervariable region of the mitochondrial genome of ancient dogs from the Americas. The researchers found four never-before-seen genetic signatures in the new samples, suggesting greater ancient dog diversity in the Americas than previously thought. They also found unusually low genetic diversity in some dog populations, suggesting that humans in those regions may have engaged in dog breeding.

But the most surprising finding had to do with the dogs' arrival in the Americas, according to Witt.

"Dog genetic diversity in the Americas may date back to only about 10,000 years ago," she said. ■

Pioneers in Science



Two professors in the College of Liberal Arts and Sciences are among the latest researchers elected to the American Association for the Advancement of Science (AAAS), a prestigious scientific society composed of those who have made outstanding contributions to their field.

Brendan A. Harley, a professor of chemical and biomolecular engineering, and **Phillip A. Newmark,** a professor of cell and developmental biology, were among the 400 scientists from around the country selected as 2014 fellows to the AAAS.

Harley was chosen for his contributions to the fields of biomaterials and tissue engineering. His research focuses on developing advanced biomaterials that replicate dynamic, varying environments found in the body. Harley and his research team are creating biomaterials to regenerate musculoskeletal tissues after injury and to study the onset, growth, and treatment of diseases such as cancer.

Newmark was cited for his work in developmental biology, with particular emphasis on regeneration and germ cell development in flatworms, which carry profound implications for the field of regenerative medicine by their ability to regenerate from just a small sample of tissue. Newmark studies how their stem cells contribute to regeneration and tissue maintenance. ■

Muslims and Latinos Much More Prominent in TV Crime News than in Real-life Crime

If it seems more terrorists are Muslims and almost all immigrant lawbreakers are Latinos, it may be because you are watching too much TV news—not because those things are true.

That is one implication of a study of five years of network and cable crime news led by Illinois communication professor **Travis Dixon.**

The study sampled 146 episodes of prominent news programs focused on breaking news (rather than commentary) that aired on ABC, CBS, NBC, PBS, CNN, Fox News, MSNBC, and Univision over the calendar years 2008-2012.

Dixon found that among those described as domestic terrorists on those programs, 81 percent were identifiable as Muslims. Yet in FBI reports over the same period, only 6 percent of domestic terrorist suspects were Muslim.

Likewise, among those described as immigrants accused of a crime on those news programs, almost all (97 percent) were identifiable Latinos, according to the study—yet only about half of immigrants (47 percent) are Latinos, according to a cited 2013 report from the U.S. Department of Homeland Security.

The results show that "the entire way we conceive of these policies is through a particular kind of ethnic lens," Dixon said. "Our conceptualization of various issues is so tied to race and ethnicity considerations that we've actually been somewhat misinformed."

The episodes included in the sample were from *ABC World News Tonight; CBS Evening News; NBC Nightly News; PBS NewsHour; Anderson Cooper/Anderson Cooper 360, CNN Newsroom Live; The Situation Room; Fox News Live; On the Record with Greta Van Susteren; MSNBC Live; Univision Ultimate Hora;* and *Noticero Univision.* ■

An Unlikely

For Three Former California Residents who Grew up Together, Life Comes Full Circle at Illinois

Here's a statistical question. Consider two young girls growing up on the same block on Rosewood Avenue in Inglewood, Calif., in the 1990s. They're the same age, both daughters of blue-collar immigrants, and attend the same schools. One of them, a clarinetist, sits directly in front of the other, a saxophonist, in the middle school band.

They attend different high schools. By then, one says, going to college was "a process we didn't know existed." Their parents never attended college, and, in their neighborhood, not even a high school diploma was taken for granted.

What are the odds, then, that both of these uncertain young women, carried along by a confluence of determination and unlikely events independent of each other, would not only eventually go to college, but earn doctoral degrees at the same time?

Now ask yourself this: What are the chances of these two meeting again in 2014, some 2,000 miles from Inglewood on the campus of the University of Illinois, having not only unknowingly applied to the same post-doctoral program, but having been accepted at the same time, and even assigned the same office in the Department of Latina/Latino Studies?

Here's another twist: What are the chances that a five-minute walk from their office, in the English Building, studies another former Inglewood resident of virtually the same background—the daughter of immigrants, same age, same neighborhood, attended the same schools, and was, in fact, a close friend of one of the other two—working toward her doctoral degree?

For the non-statisticians among us, let's just say it's about as likely as snow in Los Angeles on Independence Day. But meet Ana Soltero Lopez, Claudia Sandoval, and Ariana Ruiz, who stand as more proof that anything is possible at the University of Illinois.

Lopez, the aforementioned former clarinetist, is spending her year-long post-doctoral program studying the education experiences of undocumented immigrants. Sandoval, the former saxophonist, is spending her post-doctoral program studying black-Latino relations in the Midwest.

During the week, Sandoval (whose husband is in Chicago) rooms with Ruiz, who is studying Latina literature as she wraps up her doctoral degree in English. For the three former southern California residents, their unexpected reunion is as rewarding as it is remarkable.

Claudia Sandoval, Ana Soltero Lopez, and Ariana Ruiz, together on the Quad.

"We all have memories of each other," Sandoval says. "We all know so many of the same people, we all got our hair done at the same place. We had the same teachers. If there was a fight, we would remember it just the same. All of that has made for a smooth bonding experience. It's made the experience in Urbana much more pleasant than going in and not knowing anybody."

Back where this story begins, in Inglewood, Lopez and Sandoval grew up virtually within sight of each other. Ruiz lived just a few minutes' walk away. Sandoval and Ruiz were good friends—like Lucy and Ethel from *I Love Lucy,* they joke—while Lopez, a year behind in school, was a familiar face. Lopez and Sandoval went to Beulah Payne Elementary together, and all three attended Crozier Middle School.

After that, their stories begin to separate. Lopez and Ruiz went to Inglewood High School, while Sandoval went to Westchester High.

Sandoval's father was a gardener, and her mother cleaned houses. Sandoval's mother didn't know much about college, but she knew what life was like without it. So she would bring Sandoval to help clean, saying, "You don't have to go to college, but expect to do this work for the rest of your life if you don't,'" Sandoval recalls.

Sandoval's older sister, the first in their family to attend college, encouraged Sandoval to attend events such as an annual science outreach program at nearby California State University,

Reunion

By Dave Evensen

Northridge, designed to expose children to college.

Sandoval jokes that none of her former teachers would have believed she would someday earn a PhD, but she applied for college anyway, and was accepted at the University of California-Los Angeles, where she received a tuition waiver. She caught on at UCLA (born in Mexico, she became a naturalized citizen on her first day of college), where she was named a McNair Research Scholar, which prepares students for graduate school.

In fall 2006, she entered graduate school at the University of Chicago. Upon earning her PhD, she applied to U of I's post-doctoral program because she had grown fond of Illinois and wanted to maintain her research in Chicago. She knew that her old friend, Ruiz, was at U of I, but she had no idea that her former neighbor and bandmate, Lopez, would be there until shortly before they reunited on campus, and Lopez sent her an email saying, "I know you!"

Lopez, born outside the country, was an undocumented resident until high school. As her friends discussed post-high school plans, she was saddled by the knowledge that her residency status likely eclipsed any hopes of college.

"Fortunately, I had a few gems of mentors who challenged this idea ingrained in me that graduating from high school is going to be the biggest thing that I do," Lopez says. She took advanced placement and honors courses. And then, during her senior year at Inglewood High, she obtained her residency.

All of a sudden, Lopez realized that college was a real possibility. She applied for financial aid and sent out college applications. Rushing, she says she didn't know what she was doing. She laughs at the irony of how she now advises high school students to research colleges before deciding where to attend.

"I chose the University of California-Santa Barbara because it sat on the ocean," Lopez says, with a laugh. It turned out to be a fit. Upon graduating from Santa Barbara, she went on to earn her doctoral degree in education at UCLA.

While researching post-doctoral programs, Lopez liked how many faculty at Illinois studied issues of immigration, which was her research focus. A friend of hers from UCLA who was studying in U of I's Department of Sociology vouched for the University, and by the time Lopez was accepted, U of I was her top choice.

Ruiz was born and raised in Los Angeles by her parents who came to the country hoping to provide their children with new opportunities. They expected her to go to college, but they only had a vague idea what it meant.

"My parents didn't necessarily know the process of getting into college," Ruiz recalls. "They didn't really know when applications were due, or the difference between the California State University or the University of California. They just knew that there was a thing called college, and that to kind of have access to social mobility, their child had to go."

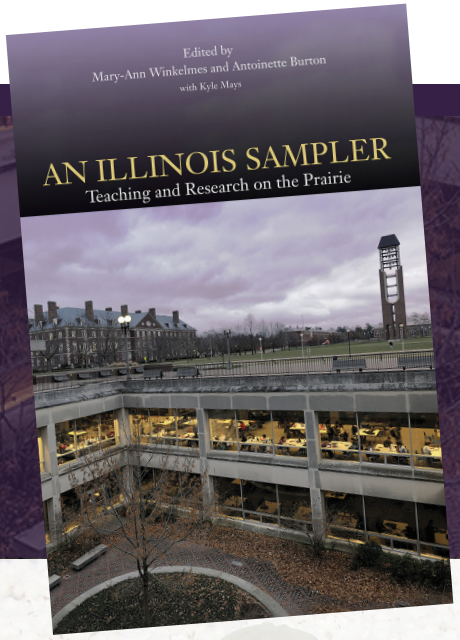
Ruiz was accepted to the University of California-Santa Cruz, but at first she didn't feel prepared. There were days as a freshman, she recalled, that she wondered how she'd make it through the next four years. By bearing down on her studies, however, the literature major graduated with hopes for even more education.

Her academic advisor connected Ruiz with Richard Rodriguez, an English professor at U of I who attended graduate school at Santa Cruz. Rodriguez sold her on U of I's English and Latina/Latino studies programs, and soon she was accepted to the U of I with dreams of earning her doctoral degree. For the next few years she never met anyone from Inglewood in Urbana-Champaign—until fall 2014.

The reunion of the three women likely will be relatively short, as Lopez's and Sandoval's post-doctoral program concludes this spring, and Ruiz hopes to be moving on soon, too. But for now, they are enjoying the resumption of a day-to-day life together. One of the group's primary tasks of this past fall, for example, was preparing Lopez for life in the Midwest. That meant showing her where to obtain a winter coat and boots, and telling her what to do when a tornado siren goes off.

Watching out for Lopez, in fact, whom the other two kiddingly regard as the younger one, is an echo of the old days, too. Lopez recalls a moment in high school when she became upset at something during a band event. She can't recall what it was, but she does remember a "sweet, quiet girl" coming over to console her.

So, when Sandoval and Lopez reestablished their connection in 2014, and Sandoval told Lopez that there was another woman on campus from Inglewood, Lopez found herself wondering what happened to that sweet girl from high school. Then they finally met, and sure enough, Lopez recognized her—it was Ariana Ruiz. ■



Balancing Faculty Responsibilities

BOOK SHOWS HOW RESEARCH AND TEACHING ARE LINKED

BY DAVE EVENSEN

A new book edited by a professor in the College of LAS demonstrates how professors at the University of Illinois not only balance teaching and research responsibilities, but how research actually improves their teaching in the classroom.

The book, called *An Illinois Sampler,* includes accounts from professors in the humanities, engineering, social and natural sciences, and other disciplines that detail the impact of their cutting-edge research on their teaching duties. Their stories illustrate how ideas and methods generated by faculty research enhance and energize their classrooms, and lead to greater creativity and discovery by students.

The book also demonstrates some of the most effective teaching practices developed at the University.

"In this timely volume and in fields as diverse as dance, geology, music, medicine, kinesiology, mathematics, engineering, and microbiology we have firsthand accounts of what faculty members are doing to make a better tomorrow," says Stanley Ikenberry, president emeritus of the University of Illinois.

An Illinois Sampler is co-edited by **Antoinette Burton,** an LAS professor of history and Bastian Professor of Global and Transnational Studies; and Mary Ann Winkelmuss, coordinator of instructional development and research at the University of Nevada, Las Vegas, where she is also a senior fellow at the Association of American Colleges and Universities; with Kyle T. Mays, a PhD candidate in history at Illinois. ■

Tom Basset, Donisongui Silué, and Tenena Silué standing before a mound of harvested cotton. Photo by Carol Spindel.

Bruce Fouke teaching coral reef biology to University of Illinois students. Photo by Colleen Cook.

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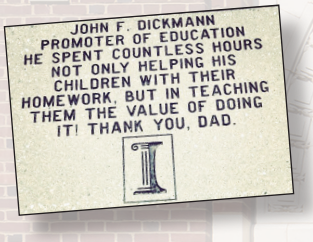

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College of Liberal Arts & Sciences Storyography

"I was chairman of this great event! It was the first dance after WWII with 1,200 couples attending in Huff Gym. There were 2,000 in the balcony listening to Tommy Dorsey!"

—"Bunny" Easter Mathisen, (AB '48, science and letters) recalls the Sophomore Cotillion, April 1946.

"Growing up in Chicago, there are many opportunities to experience diversity. However, because the city is very segregated, many of us never left our 'side' of the city. Going to U of I allowed me to broaden my horizons and outlook on life in general. From walking the Quad en route to classes...to playing sports in IMPE and living and eating in the six-pack...I was shaped and molded into the International Man that I am today! Thanks U of I!!"

—Michael A. Jones II, (AB '01, speech communication) on how his experiences at Illinois impacted his outlook on life.

Listen, read, see photos, and learn how to contribute your own story about campus life at **lincolnhall.illinois.edu/storyography**.

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SAVE THE DATE!

UPCOMING LAS ALUMNI EVENTS:

Night at the Museum with LAS

Peoria Riverfront Museum, Peoria Illinois

July 18, 2015 • 5:30-9:30 p.m.

Join LAS alumni and their families for a fun-filled adventure exploring the Peoria Riverfront Museum. You'll enjoy exclusive viewing of Dinosaurs in Motion, an interactive special exhibit, Our Universe, an astronomy show in the Dome Theater, Walking with the Dinosaurs: Prehistoric Planet 3-D in the Giant Screen Theater, River Encounter, scavenger hunt, and more! Registration begins April 1 at www.las.illinois.edu/alumni/events.

The LAS Alumni Association is planning other exciting and fascinating events this summer and fall. Please visit **www.las.illinois.edu/alumni/events** for information. ■