



THE UNIVERSITY
OF IOWA

Spectator

Volume 44 • Number 1 • Fall 2010

The University of Iowa
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300 PCO, Suite 370
Iowa City, IA 52242-2500

spectator.uiowa.edu

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Published by The University
of Iowa for alumni and friends.

To change a *Spectator* mailing
address, call Alumni Records
at 319-335-3297 or
800-469-2586, or e-mail
alumni-records@uiowa.edu.

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And the Show Goes On

Without home venue, Hancher staff continues to present events

First they watched the flood of 2008 pour so much water into their beloved auditorium that it covered the stage and the seats up to row O. Since then, they've scrambled to put on events in 16 different venues over the past two seasons, and are planning events at 17 venues in nine cities for the 2010–11 season.

And now they're dealing with the reality that they will never return to their old home and that it will be 2015 before construction of a new performing arts center is completed. Is the staff of Hancher complaining? Of course. They are human.

Mostly, however, the full-time staff of 15 is happy to follow the lead of Chuck Swanson, Hancher's executive director, who says, "It's been an adventure for us. We're kind of having some fun with it. We're making a lot of new connections and a lot of new friends."

It helps that Swanson and crew can also draw on the connections with longtime supporters, who know and appreciate Hancher's reputation as a statewide resource and as a nationally known arts presenter.

"It's amazing that people all around the state and even far from Iowa know about Hancher," Swanson says. "Because we have this history of bringing great art to Iowa, they are aware of our situation and they care."

In response, the entire crew, from programming to marketing to ticketing and production, is drawing on its pride in "the Hancher way of doing things," which demands excellence in all areas of the operation, regardless of the venue.

For instance, box office staffers have mastered the art of working in hallways.

"We have become very adept at packing lots of equipment into one large covered plastic tub that contains everything we need for a remote box office," says Richard Gloss, who manages that office. "There is no going back for anything 15 minutes before curtain."

Making arrangements for patrons with disabilities is among the dozens of details overseen by Connie Tipsword, director of patron services.

"After I've had a chance to visit a venue, I check to see if any audience members have requested assistance," she says. "Then I make phone calls and discuss what will work best for getting them into the show."

Tipsword also has created laminated "cheat sheets" of seating maps in the various venues for UI students employed as ushers.

And then there are those major details attended to by production manager Ken Schumacher, who has developed a "what-can-we-expect-from-XYZ-venue" listing that includes information on Internet and Wi-Fi availability, sound, lights, rigging, and dressing rooms. The production staff also has devised a "nomadic presenter," a portable office of containers, checklists, wheeled carts, and the like that, Schumacher says, "allows us to pack up and move to another venue for a day or two and still transact the usual home office business, such as planning other shows."

Still, pride and creativity do not mitigate the sadness of knowing that the existing Hancher building will eventually be razed.

"We've all made our peace with the fact that it's going to happen," says Julie Scott, an administrative assistant who recently retired after working for Hancher since it

opened in 1972. "But personally I won't watch it. I'll go somewhere else."

Swanson understands this sentiment, but he's also looking ahead: "It's weird, but I'm okay with the building being torn down because I know we're going to get something fabulous. There won't be many new performing arts centers built in the 21st century, but we're getting one of them."

For details on Hancher's 2010–11 season, see www.hancher.uiowa.edu.

—Steven Parrott

World-renowned firm to design Hancher

The University of Iowa selected Pelli Clarke Pelli Architects in September to design the replacement for flood-damaged Hancher Auditorium.

The Connecticut-based firm has designed many of the world's tallest and most recognizable buildings, including the World Financial Center in New York, the Petronas Towers in Malaysia, and the International Finance Centre in Hong Kong. The firm also worked on Bucksbaum Center for the Arts at Grinnell College, as well as several other performing arts centers.

Based on current projections, the design for Hancher will be bid in spring 2012, and the project will be completed in spring 2015.

For the Record

“A dropout rate seems like it should be the most intuitive thing in the world, but it’s not. There are almost as many ways of calculating state dropout rates as there are states.”

David Bills, professor of educational policy and leadership studies in the College of Education, cautioning that a commonly cited 25 percent high school dropout rate is not a perfect measurement (*PolitiFact.com*, Aug. 30).

“Any time animals come up in any of my more traditional archaeology classes, there’s kind of an excitement in the room. I realized there’s an interest in learning more about human-animal interactions. I’m trying to fulfill a need.”

Matthew E. Hill, assistant professor of anthropology in the College of Liberal Arts and Sciences, on teaching an undergraduate seminar on animals and culture and his plans to teach a course on humans’ ancient and modern relationships with dogs (*Inside Higher Ed*, July 8).

“I don’t think that people realize the importance of saliva until the well runs dry. Saliva is critical for your dental health.”

Ana Diaz-Arnold, professor of family dentistry in the College of Dentistry, noting that hydration with water is essential not only for the body, but also for the mouth and teeth (*Atwauke Foothills News*, June 27).

“This indicates there’s a need for targeted screening of such women because they’re high risk for intimate partner violence. That screening should be followed by referral to the appropriate community-based resources and supports that can help these women reduce the violence in their lives.”

Audrey Saftlas, professor of epidemiology in the College of Public Health, reacting to a survey that found more than one out of 10 women who had elective abortions in Iowa were physically or sexually assaulted by an intimate partner in the past year (*Radiolowa*, June 23).



University Study Says Caribbean Coral Protection Efforts Miss the Mark

Conservation efforts aimed at protecting endangered Caribbean corals may be overlooking regions where corals are best equipped to evolve in response to global warming and other climatic challenges, according to a UI researcher and her colleague.

In a study funded by the National Science Foundation, Ann Budd, professor of geoscience in the UI College of Liberal Arts and Sciences, and John Pandolfi of the University of Queensland in Australia, focused on understanding the biodiversity of reef-building corals—organisms that are highly diverse and seriously threatened. Their research shows that the predominance of evolutionary innovation occurs at the outlying edges of Caribbean coral species ranges, where gene flow is limited, as opposed to the well-connected central part of the Caribbean.

“Current conservation priorities are calculated on the basis of species richness, geographical uniqueness, and threats,” says Budd. “However, areas ranked highly for these factors may not represent regions of maximal evolutionary potential. Thus, conservation efforts should focus not only on the centers of diversity but also peripheral areas of species ranges and population connectivity.”



Figge Director to Lead UI Museum of Art

Sean O’Harrow, executive director of the Figge Art Museum in Davenport, is the new director of the University of Iowa Museum of Art (UIMA), effective Nov. 15. After a nationwide search, O’Harrow was selected to oversee the management and care of UIMA collections as well as its curatorial, educational, and administrative activities. In addition, he will play a leading role in planning and fund-raising for a new museum building.

The Hawaii native is a graduate of Harvard University and the University of Cambridge, and has been executive director of the Figge since 2007. During his tenure, the Figge has been reaccredited by the American Association of Museums and has seen increases in both fund-raising and attendance, setting an all-time record of more than 69,000 annual visitors and program participants in 2009–10. He also was instrumental in helping the UIMA house, preserve, and display its vast collection at the Figge following the flood of 2008.

O’Harrow also has served as the official fellow and development director of St. Catharine’s College in the University of Cambridge; senior executive in a U.S.–based investment banking firm in London; and chief operating officer of an international financial consulting and software firm in London.

Engineering Dean Named Interim Provost

Barry Butler, professor and dean of the College of Engineering, has stepped in as interim UI provost while the University conducts a national search to replace Wallace Loh, who became University of Maryland president Nov. 1. Butler has been at Iowa since 1984, when he was hired as an assistant professor of mechanical engineering. He was named full professor in 1995 and the college’s associate dean of academic programs just two years later. He became interim dean of the college in 1999, and dean in 2000.

Alec Scranton, professor and associate dean of academic programs in the College of Engineering, will serve as the college’s interim dean.



UI Public Health Experts to Train Romanian Researchers in Disease Prevention, Management

Romania, a central European nation that has been identified by the World Health Organization as a region that is “the worst afflicted by non-communicable chronic diseases,” will benefit from a \$1.1 million grant to investigators in the UI College of Public Health.

The Fogarty International Center at the National Institutes of Health awarded the funds to the University to train Romanian researchers in the prevention and management of non-communicable chronic diseases, such as cancer, cerebrovascular diseases, lung disease, obesity, and environmental and lifestyle factors. Such diseases currently account for nearly 90 percent of all deaths in Romania.

The training, involving UI faculty from the College of Public Health and the Carver College of Medicine, will cover a broad range of research areas including genetics, epidemiology, clinical research, and implementation science. Over a five-year period, the project will support early- and mid-career scientists and health professionals from Romania for various lengths of training on the UI campus, including extensive use of Internet-based web-conferencing. Following their training, returning public health scholars will conduct a series of joint workshops in Romania.



Iowa Researchers Assist in Post-Spill Study of Gulf Coast Marshlands

Although it may be too early to know how the April 20 British Petroleum (BP) oil disaster will ultimately affect the grasses that comprise Gulf Coast marshlands, UI College of Engineering researchers are taking precautions.

Jerry Schnoor, professor of civil and environmental engineering, and two UI students are conducting research in collaboration with Louisiana State University, just in case their worst fears are realized and the waves of crude oil washing ashore kill the marshland grasses. If such a disaster were to take place, having samples of native grasses already in hand would allow conservation workers to replant the marshlands, if necessary.

It’s a scenario that may come true, says Schnoor, who adds that samples of native Louisiana grasses could be used to restore a partially ruined ecosystem.

“The marshlands are critical habitat for birds, fish, shrimp, and crabs,” Schnoor says. “Dense grasses hold the sand and sediment in place and protect coastal Louisiana from hurricanes, while simultaneously providing a nursery for threatened species like the salt marsh topminnow. If these marshlands succumb to crude oil toxicity, we will perform research into phytoremediation of the contaminated zones and reestablishment of native grasses like *Spartina alterniflora*.”

Schnoor says Iowa got involved with the research due to a collegiality among university researchers and a willingness to help out, and adds that he and his UI colleagues are confident that the University, while located far from the Gulf Coast, will offer first-rate scientific and engineering resources with its Center for Global and Regional Environmental Research and IIHR–Hydroscience & Engineering.

Old Music Building Named in Honor of Stuit

The building formerly known as the Old Music Building, or OMB, was renamed over the summer in honor of the late Dewey B. Stuit, dean of College of Liberal Arts and Sciences from 1949 to 1977 and professor emeritus of psychology.

Stuit Hall, built in 1918 on the corner of Jefferson and Gilbert streets, recently was renovated and will house the Department of Psychology. Stuit, who died in 2008, and his late wife, Velma, were members of the UI Foundation’s President’s Club and donated funds to help finance the building’s renovation.



Computers Can Effectively Detect Diabetes-Related Eye Problems

People with diabetes have an increased risk of blindness, yet nearly half of the approximately 23 million Americans with diabetes do not get an annual eye exam to detect possible problems.

But it appears that cost-effective computerized systems used to detect early eye problems related to diabetes can help meet the screening need, a UI analysis shows.

The Iowa team compared the ability of two sets of computer programs to detect possible eye problems in 16,670 people with diabetes. Each of the two programs (known as EyeCheck and Challenge 2009) is based on technology developed at the University, and each performed equally well, achieving the maximum accuracy theoretically expected.

The systems require a trained technician to use a digital camera to take pictures of the retina, located inside the eye. The images then are transferred electronically to computers, which can automatically detect the small hemorrhages (internal bleeding) and signs of fluid that are hallmarks of diabetes damage.

“The computerized programs are accurate and allow ophthalmologists to spend time on patients who actually need care and provide better care to those patients,” explains Michael Abramoff, associate professor of ophthalmology and visual sciences in the Carver College of Medicine and an ophthalmologist with UI Hospitals and Clinics. “Also, through this technology, people with diabetes can have an opportunity for screening that they might not otherwise have.”

Talk to Us

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A Team Effort

UI Children's Hospital, Hawkeye football program join forces to share inspiring stories, highlight pediatric patient care

Minutes before Iowa's Big Ten Conference opener against Penn State University inside historic Kinnick Stadium, the field clears. Free from football players performing calisthenics, free from referees conversing with coaches, and free from the cheerleaders continuously chanting cheers, a small, unimposing individual accompanied by a single adult strolls toward the 50-yard line.

Upon arrival, the child's name is announced. Her story about complications with a past stroke is briefly told to the crowd of 70,000. The announcer shares the news of her positive strides since the nearly fatal medical condition in 2009. The crowd roars, and the child waves joyfully, a smile spreading across her face.

The child is 9-year-old Maddie Strauss of Dubuque, Iowa. She is the Kid Captain for the contest between Kirk Ferentz's Hawkeyes and Joe Paterno's Nittany Lions.

University of Iowa Children's Hospital and the Iowa Hawkeyes football program are collaborating for a second year to share during the Hawkeye football season inspiring stories of some of the hospital's current and former pediatric patients.

Cheryl Hodgson, senior marketing specialist with UI Health Care, says the program has a profound effect on all involved.

"By recognizing these life-changing stories," she says, "we are demonstrating how we are changing medicine and changing kids' lives."

UI Children's Hospital solicits nominations for the Kid Captain program from parents of patients, with the selected Kid Captains receiving a commemorative jersey and having their stories highlighted on the web, in local media, and throughout UI Hospitals and Clinics. Kid Captains chosen for home games receive four free tickets, parking accommodations, and recognition at midfield

before kickoff. Videos of all the kids and their families are published on the UI Children's Hospital's web site, www.uihealthcare.com/depts/uichildrenshospital.

Lori Strauss, Maddie's mother, says the Kid Captain program epitomizes the dedication the entire UI Children's Hospital staff exhibits in trying to save and heal every patient.

"I think it is such a wonderful thing that the children's hospital and football team recognize the positive effect being a Kid Captain will have on the children," she says. "Maddie loves the Hawkeyes, and she and our family will remember this experience forever."

Maddie was a patient in April 2009 after having a stroke. Originally suspected to be a stomach virus, Maddie's sickness turned into brief, intense headaches. The morning she was to be seen at UI Children's Hospital, she awoke having seizures. The diagnosis was a bilateral stroke caused by her carotid arteries

tearing. After admission to the hospital, her doctors also discovered severe brain swelling.

Luckily, the doctors were able to avoid performing a high-risk brain surgery when the swelling abated on its own. After 13 nights of hospitalization and 17 days of rehabilitation, Maddie went home and has since made significant progress.

Bill Strauss, Maddie's father, says he cannot thank the hospital enough for its aid and strong support. After witnessing hospital staff giving gifts, football players reading children's books, and other volunteers playing with the kids, he says it was difficult for the family to say good-bye.

"It was strange. Despite the intense medical scare our family endured, it was almost hard to leave the hospital," he says. "You feel so well cared for—it's challenging to leave. And when the football players came in and read children's books while struggling to fit into the tiny chairs—that was truly special."

Ferentz says the program is win-win: it helps student athletes keep things in perspective, while also highlighting young patients and the care they receive at UI Children's Hospital.

"I think the program is outstanding," Ferentz says. "The overall response to it is very, very positive and it is a great opportunity for the young individuals selected. I think the only downside is that we only get to pick one per game; there are so many worthy applicants."

For more information on the Kid Captain program, visit www.uihealthcare.com/depts/uichildrenshospital/kidcaptain.

—Travis Varner



As designated Kid Captain for the Oct. 2 Homecoming game, Maddie Strauss got to meet the Hawkeye coaching staff, watch the team take the field from the tunnel at Kinnick Stadium, be recognized at midfield before kickoff, and hang out with former Hawkeye Chad Greenway, a player for the Minnesota Vikings who served as honorary captain at the same game.

Insight into Structure of HIV Protein Could Aid Drug Design

A 3-D picture of an important protein involved in how HIV—the virus responsible for AIDS—is produced inside human cells may help researchers design drugs that can prevent HIV from reproducing.

A team of investigators, led by David Price, UI professor of biochemistry in the Carver College of Medicine, and Tahir Tahirov of the University of Nebraska Medical Center, combined their expertise in protein chemistry and X-ray crystallography—a technique for observing protein structures—to produce the first crystal structure of the HIV protein called Tat. The structure shows Tat attached to the human protein, P-TEFb, that the virus hijacks during infection, and illustrates how Tat latches on to this particular human protein and how the interaction alters the shape of the human protein.

"We have solved the long-sought-after structure of an important HIV protein," Price says. "Now that we know the details of the interaction between Tat and P-TEFb, it may be possible to design inhibitors that target P-TEFb only when it is interacting with Tat."

This distinction is important because although inhibiting P-TEFb blocks replication of the HIV virus, P-TEFb is a vital protein in human cells, and inhibiting it kills cells. If an inhibitor could be designed that distinguishes between the P-TEFb attached to Tat and the form that is normal in human cells, that drug might target HIV replication without harming normal cell function. Such compounds also could be useful in combination with existing anti-HIV drugs to further reduce viral levels in HIV-infected individuals.

In addition, drugs that target P-TEFb may be useful in treating the growing problem of drug-resistant HIV. The HIV virus mutates very easily and can develop resistance to current drugs that target viral proteins. Targeting a human protein like P-TEFb that the virus needs but cannot mutate may be a successful strategy to counter drug-resistant HIV.

Seven UI Graduates Make *New Yorker's* List of 20 Young Writers to Watch

The *New Yorker* magazine published in June a list of "20 under 40" writers to watch, and the list includes seven graduates of The University of Iowa: Chris Adrian, Daniel Alarcon, Sarah Shun-lien Bynum, Joshua Ferris, Yiyun Li, ZZ Packer, and Salvatore Scibona. All but Ferris, an English and philosophy graduate, are alumni of the Iowa Writers' Workshop. Yiyun Li, named a MacArthur Fellow in September, has an additional degree from the UI Nonfiction Writing Program.

Gardens of Water Selected for 2010 Community Book Project

A story by an Iowa Writers' Workshop graduate was selected for the UI Center for Human Rights project One Community, One Book, which promotes insight and understanding of human rights in the United States and the world.

Gardens of Water, by Alan Drew, is about a devout Muslim family and an American Christian family that must coexist in a large refugee camp in Turkey when the apartment building where both families lived is destroyed after a massive earthquake. Drew lived and taught in Turkey during the earthquake and its aftermath.



The goal of the project is to encourage people to read and discuss the selected book, which develops a greater community awareness of human rights issues locally, nationally, and globally. More information is available at www.uichr.org.

UI Students Help Boost State's Rate of Volunteerism

The University of Iowa has helped Iowa become second in the nation in volunteerism. According to a report released in June by Volunteering in America, Iowa college students rank second in the nation in volunteering within the college student demographic, up from 32nd in 2006, with 41 percent of college students volunteering their time in 2009.

As a state, Iowa has the second-highest volunteer rate in the country, with 38.7 percent of its residents volunteering their time in 2009, surpassing its fifth-place ranking from the year before. Iowa City has the second highest volunteer rate nationally for cities of its size, with 50 percent of residents volunteering.

Iowa's high percentage is due in part to the 92 college students enrolled in the Iowa Campus Compact AmeriCorps program. Each participant provides hundreds of hours of volunteer service across Iowa helping meet local community needs. Participants also can earn up to \$1,000 toward tuition by recruiting 10 additional volunteers each during their period of service. This year, 16 UI students participated in the program, receiving a total of \$14,306 in education awards.



Rural women's clubs were important sources of support and information throughout the 20th century; this one, organized near Emmetsburg, Iowa, in 1923, featured talks by extension agents on various aspects of home-making and health, and remained in existence until 1989. University researchers in social work believe they can help resurrect in aging women successful coping strategies from the women's past by talking with them about how they dealt with difficult situations or events.

A Reason to Reflect

UI study suggests narrative inquiry helpful in social work

Some say the past is the past, so leave it behind and don't look back. But a University of Iowa study suggests that reflecting on the past—particularly how we coped with trying times—could come in handy later in life.

UI students interviewed 25 women in a rural Iowa town about historic events that had a major impact on their lives, and how they dealt with them.

Not surprisingly, the Great Depression and World War II topped the list of trials. The women recalled strategies like reaching out to others for support, learning to accept what they couldn't change, and conserving resources any way possible. Researchers believe those same strategies can be resurrected as the women age, and that social workers could use narrative inquiry to summon existing inner strengths.

The findings on stress and resilience were published in the *Journal of Women and Aging* by Lorraine Dorfman, professor emerita of social work in the College of Liberal Arts and Sciences; UI graduate student Elizabeth Mendez; and social worker Joelle Osterhaus.

"They may not have thought about how they managed 50 years ago, so maybe it needs to be drawn out,"

Dorfman says. "A real challenge for practitioners is to help people understand what they have going for them, in terms of internal and external resources. When people are aware of what they have, they may act on it."

The study focused on women in rural areas, who frequently face more obstacles than other aging adults. Often, Dorfman says, the women are widowed with little income, and have limited access to health care and social services. Even finding transportation to a doctor's appointment or the grocery store can be difficult, and typical support team members, such as grown children, may have moved away for jobs or other reasons.

Women in the study, most in their 80s or 90s, described past hardships in vivid detail. During the Depression, one woman's family ate beans for every meal because they couldn't afford to meet basic needs, and she had to drop out of school at age 12 to work. Another wore cornflakes boxes on her feet when the soles of her shoes wore out. They recalled going to live with better-off families in order to attend school and borrowing a friend's cow to sell cream. The war sparked feelings of fear and uncertainty, and left them grieving for lost loved ones.

"The women talked about accepting things they could not change," Dorfman says. "There are some advantages to that, early and late in life. There are certain things that you may not like but have to learn to live with."

The researchers point out that recalling how to be more economical, or how to "get by with less," is useful when operating on a fixed income later in life. Remembering where to look and how to ask for help is important, especially if a social support network shrinks, Dorfman says.

"If a woman is bereaved because she lost her husband, who can she talk with? If she needs a ride but her kids live out of town, where can she turn?" Dorfman says. "It's helpful to take inventory of her social network. Social workers can help fill the gaps with formal services, and older folks shouldn't forget that it is possible to meet new people late in life, if they are able to get out to community events, a senior center, or a church."

Dorfman says further research is needed to measure the effectiveness of using narrative inquiry to revive coping strategies later in life. But generally, older people enjoy reviewing their lives through conversation.

"Some things can be painful to discuss, and not everyone wants to do it," Dorfman says. "But often they identify a lot of things that they did right. A life review is very therapeutic because it increases one's understanding of the self. In itself, it seems to be a technique that's valuable for older people."

—Nicole Riehl



One for the Book

Donation fuels scholarship at UI Center for the Book

For years, pundits have foreseen the death of the book. While there's no doubt that information now comes in numerous electronic formats, the book you can read unafraid in the bathtub lives on.

Not only are books still with us, so is the art of making them—especially at The University of Iowa.

The UI Center for the Book (UICB), a program within the Graduate College, was formally established in 1986, although Iowa has offered printing courses since the late 1930s, with typographic studies beginning in 1945. Today, there are 14 professors and instructors teaching courses in typesetting, artist's books, binding, conservation techniques, digital book design, calligraphy, and more. The most renowned member is Tim Barrett, a research scientist who heads up the papermaking facility and in September 2009 was awarded the so-called genius grant from the MacArthur Foundation.

Having a MacArthur "genius" on staff certainly helps increase the center's visibility. But so do opportunities created by an anonymous donor. In June, the center received a three-year, \$256,000 grant from a private foundation. The donation reflects ongoing support for the Center for the Book.

"The confidence that donor shows in us is a real boost, as it supports a number of national arts and crafts organizations," says Matt Brown, UICB director and associate professor of English in the College of Liberal Arts and Sciences. He notes that the support has enabled the center to bring in visiting artists and scholars and to travel to conferences and meetings.

The center also hosted the first national meeting of the College Book Arts Association, where more than 230

attendees took part in 45 events, including lectures, panel discussions, and exhibitions. "There are other centers that focus on books, but none of them have the range of course offerings we have," says Brown. "The meeting allowed us to show off our top-notch facilities, too."

The center continues to grow. This fall the Typography Lab, a collection of presses and rare type previously under the jurisdiction of the late UI journalism professor Kay Amert is scheduled to move to North Hall, the home of the center. And compared to its early years, the UICB has double the number of applicants today, according to Sara Sauers, adjunct assistant professor, who teaches letterpress printing and digital book design. UICB graduate students currently receive a certificate for 24 credits of course work, and a proposal is under administrative review for a Master of Fine Arts.

Still, the continued and growing interest in a form of communication that many consider anachronistic may seem surprising. But Brown believes there are many reasons for it.

"That the book arts are a long-standing craft with its own beauty and value is one aspect that interests students, and the skills they learn can prepare them for work in a variety of fields, including private printing enterprises, nonprofits, University presses, and more," says Brown. "But the UICB also creates an environment where students integrate satisfying work with their hands in sync with their intellectual development. We live in a more-faster-better world, and there is value in slowing down. That slowing down is not a retreat, but instead it's good for the mind. It teaches focus, a valuable skill in any field."

—Linzee Kull McCray

Lamaze Lowdown

How a popular childbirth method crossed the Iron Curtain

Lamaze and its signature “hee-hee-hoo” breathing pattern is a staple in pop culture depictions of childbirth, from television shows *Friends* to *The Simpsons*. Employed by countless laboring mothers in the 1960s and ’70s, the pain-management technique became a household name and still exists as an option for natural childbirth.

Despite its familiarity, few people know that it was developed in the Soviet Union during the Cold War under the unwieldy name *psychoprophylaxis*.

Paula Michaels, associate professor of history in the University of Iowa College of Liberal Arts and Sciences, is writing an international history of Lamaze. Her book is slated for publication by Oxford University Press in 2013.

Michaels received a UI Faculty Scholar Award to begin her project, and subsequently was awarded funding from the Guggenheim Foundation, the American Council of Learned Societies, the National Institutes of Health, and the National Endowment for the Humanities.

The project began in 2000, when Michaels was pregnant and searching for childbirth methods. A brief history of Lamaze mentioned its roots, and Michaels—who specializes in the history of medicine and 20th-century Russian and Soviet history—was intrigued. By 2006, she was learning a fourth language, French, to investigate the history of Lamaze.

She discovered that the Soviet Union promoted a baby boom after World War II, but couldn’t supply the pain medication authorities believed would encourage women to have more children. Seeking an affordable way to make childbirth less painful, a Ukrainian psychologist developed psychoprophylaxis in 1948.

“It was ideologically kosher because they could explain why it worked on the basis of Pavlov’s theory of conditional response,” Michaels says. “The idea is that women respond to labor contractions with relaxation

because they’ve been trained to do so, and the patterned breathing occupies the cerebral cortex and interferes with pain signals.”

In 1951, psychoprophylaxis was declared the official childbirth method for Soviet moms. It was presented at an obstetrics conference in Paris, and in the audience was French obstetrician Fernand Lamaze. After observing a psychoprophylactic birth in Leningrad, he was a believer.

The technique was a hit in his clinics. One clinic was funded by the Metallurgists Workers Union, which had communist ties, so administrators were eager to promote Soviet science. At Lamaze’s upscale private practice, women appreciated an alternative to strong drugs that deprived them of a participatory birth experience.

By 1956, psychoprophylaxis was fading in the Soviet Union. As de-Stalinization ramped up, pressure to use the technique decreased and doctors questioned its effectiveness.

Elsewhere, it took off. The Vatican declared it an acceptable method, and Lamaze died during an argument with clinic administrators, but his protégés dispersed, spreading psychoprophylaxis.

In the United States, Lamaze’s former patient Marjorie Karmel became pregnant again and was disappointed that New York doctors were unfamiliar with the childbirth method she’d used in Paris. Her 1959 book, *Thank You, Dr. Lamaze*, caught the attention of childbirth educator Elizabeth Bing and obstetrician Benjamin Segal. The trio founded the organization today known as Lamaze International.

“Detractors called it Pavlov’s method to associate it with communism, and to link it in women’s imaginations to salivating dogs,” Michaels says. “Supporters downplayed its Soviet origins, and were quick to note that there was nothing ideological about it.”



Before Lamaze, childbirth pain was often handled with drugs that put women in an amnesic, drowsy state called twilight sleep. Some awoke confused or violent and had to be restrained.

“It wasn’t, by today’s standards, a pleasant birth experience,” Michaels says. “The popularity of Lamaze in the ’60s and ’70s was fueled by consumerism—women asserting their power to choose—and feminism, which urged them to take charge of their bodies.”

Some American women began to consider a drug-free delivery an accomplishment, but French feminists questioned why they should face childbirth pain without anesthesia. In both countries, Lamaze declined by the 1980s, when epidurals gained popularity.

“Whether or not it’s the truly empowering birth experience it was billed to be, Lamaze was the predominant method used by a generation of American moms,” Michaels says. “Psychoprophylaxis would never have made its way to the United States during the Cold War had it not made a stop in France and been repackaged as Lamaze.”

—Nicole Riehl

Lamaze Timeline

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| <p>1945 To promote a postwar baby boom, the Soviet Union seeks affordable ways to make childbirth less painful.</p> <p>1948 Ukrainian psychologist I. Z. Velvoski develops psychoprophylaxis.</p> <p>1951 French obstetrician Fernand Lamaze is introduced to psychoprophylaxis at a conference in the Soviet Union.</p> <p>1952 The first birth using psychoprophylaxis takes place in France after Lamaze, a firm believer in the method, introduces it at his clinics.</p> <p>1956 Nikita Khrushchev gives his “secret speech,” pushing forward the movement toward de-Stalinization. Pressure to use the method declines; doctors question its effectiveness.</p> <p>1956 The Vatican endorses psychoprophylaxis as an acceptable method.</p> | <p>1957 Lamaze dies. His colleagues disperse, spreading psychoprophylaxis.</p> <p>1959 American Marjorie Karmel, a former patient of Lamaze’s, writes <i>Thank You, Dr. Lamaze</i>.</p> <p>1960 With a childbirth educator and an obstetrician, Karmel founds the American Society for Psychoprophylaxis in Obstetrics (ASPO), today known as Lamaze International.</p> <p>1960s–70s Lamaze takes off in the U.S., fueled by the consumer and feminist health movements. French feminists begin to reject the method.</p> <p>1980s Epidural anesthesia becomes popular; popularity of Lamaze declines.</p> |
|---|---|

Economic Engine

New study charts University’s 16-to-1 return on state investment

Every year, The University of Iowa generates about \$6 billion for the Iowa economy, making it one of the state’s leading economic engines.

That’s the bottom-line finding of a new study by the firm Tripp Umbach, which specializes in economic analyses of health care organizations, universities, and academic medical centers. The study charts how the University creates jobs, supports businesses, draws out-of-state dollars, and otherwise strengthens Iowa’s economy.

“It would be hard to imagine a part of the state, or an industry segment or sector, that isn’t supported by The University of Iowa,” says Paul Umbach, founder and president of Tripp Umbach.

According to the study, the University provides a solid return on public investment: every dollar in state appropriations generates nearly \$16 in economic impact.

Other key findings from the study, which utilized fiscal 2009 data, include:

- **The University** is responsible for creating nearly 52,000 jobs.
- **UI expenditures** for capital goods and services total \$1.4 billion annually.
- **UI visitors** contribute more than \$208 million to Iowa’s economy.
- **University employees**, contractors, visitors, and others pay about \$487 million in state and local taxes, or about \$1.28 for every \$1 in state funding to the University.
- **Out-of-state students** pay nearly \$144 million in tuition and produce an overall economic impact of \$380 million.
- **University research** injects almost \$963 million into the state economy, drawing \$429 million in external funding and creating 6,275 jobs.
- **Commercialization of UI discoveries** will yield between \$1.4 billion and \$2.4 billion over the next decade.

- **University of Iowa Health Care** provides more than \$232 million in uncompensated services, including charity care.
- **UI employees and students** donate nearly \$70 million in charitable contributions and volunteer time.

The University attracts tuition dollars, state funds, research grants, and other revenues, then spends them in ways that ripple through Iowa’s economy. The Tripp Umbach study reported both direct and indirect impacts of UI spending, tallying \$2.6 billion in University expenditures and calculating how businesses and individuals re-spend that money within Iowa.

For example, the University directly employed 20,727 faculty and staff during the study period, but also provided indirect support for nearly 32,000 jobs in virtually every economic sector, from construction and hospitality to information technology and security.

The study quantifies the University’s overall impact as an employer, magnet for investment, and business partner. It doesn’t, however, account for the profound effects—economic and otherwise—of a UI education on individual lives.

“In the state of Iowa, each year of college education adds about 10 to 12 percent to an individual’s salary,” says Charles Whiteman, an economist and senior associate dean at the Tippie College of Business who has conducted previous economic impact analyses. “A four-year degree adds about \$25,000 a year to the typical family income.”

Paul Umbach points out that recipients of a UI education go on to make their own economic mark.

“Our study does not capture the economic impact of alumni who stay in the state and start businesses, employ people, and create an even stronger Iowa economy,” he says.

Learn more about the University’s economic impact at www.uiowa.edu/impact.

—Lin Larson

Big Game Brings In Big Bucks

The economic impact of a seven-game Iowa Hawkeye football schedule on Johnson County exceeds \$100 million, according to a pilot study conducted in fall 2009 by students in a UI graduate class.

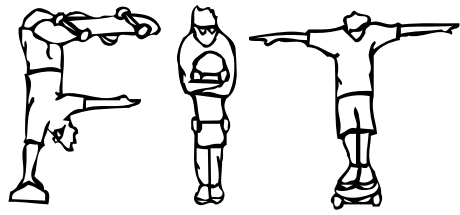
In a collaboration with the Iowa City/Coralville Area Convention and Visitors Bureau, students of Michael Lomax, associate professor of leisure studies in the College of Liberal Arts and Sciences, conducted a survey of 572 randomly selected fans who were in the area for a game against Northwestern University in November.



The study found that the projected economic impact of one Iowa football game on the county is more than \$14.5 million, while the impact of one seven-game season is more than \$100.1 million. The surveyors also determined that the average game attracts more than 51,000 visitors to the county, with the average size of a travel party being 3.7 persons.

On average, a travel party that indicated they stayed in a local hotel spent \$944 during their stay, while those indicating they didn’t stay in a local hotel spent \$273.

Additional studies will be conducted during the 2010 season.



for the whole campus

New 215,000-square-foot recreation and wellness facility opens

Evidence suggests that students who use campus recreational facilities are more likely to have higher grade-point averages and stay in school. In that case, The University of Iowa's mission just got a little easier.

The institution welcomed an energizing new addition in August: the Campus Recreation and Wellness Center. The \$70-million, 215,000-square-foot facility, located a block south of the Main Library, is home to a 52.5-foot climbing wall, an Olympic-sized pool with spectator seating for up to 2,000, a high-dive pool, two full-size basketball courts and a multi-activity court, an indoor track, a leisure pool with a "lazy river" feature and a giant video board for movie screenings, and loads of natural light. It also features a lounge area and café, and is open until 1 a.m. Thursday–Saturday nights.

"It's pretty impressive," says Paula Plathe, a junior from

Granville, Iowa, majoring in social work. "It's important for everyone to get exercise and a lot of students are busy throughout the day, so it's nice to have it close to the center of campus. I think it's great that the University is providing it."

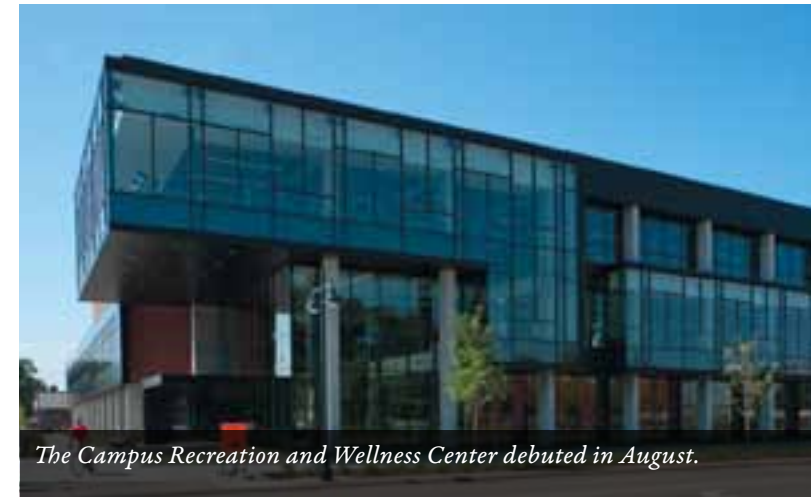
Plathe previously frequented the Field House once a week for its indoor track, rock-climbing wall, and pool, but says she intends to use the new facility more often.

Planning the construction project, says Recreational Services director Harry Ostrander, was a long, thoughtful process that began a decade ago and involved visiting facilities across the country, conducting focus groups, and hiring a consulting firm. It also considered local and national trends in recreation.

"Recreational activity on campus used to center on the male-dominated intramurals, and then there was

a shift toward fitness and group exercise, which were very female-oriented activities. There also has been tremendous growth in outdoor recreation—with more people interested in rock climbing and bicycle touring," explains Ostrander, who joined the department in 1969. "Students told us they wanted more fitness space, more basketball courts, and more group exercise. This new facility places The University of Iowa within the top 10 campus recreational facilities in the country."

The fitness area in the new building spans more than 20,000 square feet over three floors, with exercise machines featuring embedded televisions and iPod hook-ups and floor-to-ceiling windows overlooking Burlington Street and Gibson Square. Along with the fitness and recreation space, the facility houses administrative offices for Recreational Services as well as UI Wellness, a human



The Campus Recreation and Wellness Center debuted in August.



The Field House, built in 1927, will remain open.

resources unit that offers health services to UI faculty and staff, and Health Iowa, the health promotion and education branch of Student Health Service.

But don't count out recreational activities at the Field House just yet, Ostrander notes. That building, which opened in 1927 and was renovated in 1985, remains open for scheduled activities such as intramurals, club sports, and lesson programs, and still operates its basketball and racquetball courts; the Field House pool will operate through May 2011, when it will be converted for another, yet-to-be-determined use.

Now, however, all patrons of the Field House and the Campus Recreation and Wellness Center must have a Recreational Services membership, or pay a daily walk-in fee. Membership includes access to all campus recreation facilities, gyms, climbing walls, pools, racquetball and

badminton courts, jogging tracks, and group exercise classes and is free for enrolled students—the facility is funded primarily through students' mandatory fees. Discounted memberships are available to faculty, staff, UI retirees, alumni, and their families. The general public also may purchase memberships.

Long-term plans, Ostrander adds, include the construction of additional recreation space immediately south of the new facility, at which point the Field House likely will close.

Wayne Fett, senior associate director of Recreational Services and building project manager, says while the Field House continues to be functional, having a more modern facility is valuable to the University.

"It's easier for us to manage and supervise. Plus, it will be an incredible recruiting tool—new students now are

expecting the kinds of facilities they have in their local communities," he says. "And it's also good for retention."

Tom Rocklin, interim vice president for student services, agrees.

"Our mission is student success, and student health is part of that," he says. "It's important to have recreational opportunities and also to develop teamwork and leadership opportunities in recreation. This new facility will offer fun, alcohol-free activities and help our students grow."

To learn more about Recreational Services and the Campus Recreation and Wellness Center, visit them online at www.recserv.uiowa.edu.

—Sara Epstein Moninger



Users must have a membership—or pay a daily walk-in fee.



Students asked for more fitness space, and they got more than 20,000 square feet of it.



The building sports three pools—for lap swim, high diving, and leisure.



One of the facility's most impressive features is the 52.5-foot climbing wall.



Vibration Cessation

UI investigators study ill effects of vibration on human body

The rattling of a tractor, the bouncing of a semitruck seat, and even the water turbulence inside the handle of a high-pressure sprayer can be more than just annoying—the vibration may be detrimental to your health.

When the human body comes into contact with mechanical environments that produce vibration, it can experience health effects ranging from minor to life-altering.

“Mechanically induced vibration can result in decreased blood flow, cause numbness, and break down connective and muscular tissue that holds everything in place,” says longtime UI spine researcher David Wilder. “These health effects can alter one’s way of life.”

Wilder is an associate professor of biomedical engineering in the College of Engineering, and with help from the UI Center for Conferences and professors Salam Rahmatalla and Nathan Fethke, he organized the third American Conference on Human Vibration, held on campus in June. Leading scientists in the field from around the world presented findings on understanding, minimizing, and eliminating vibration affecting human

whole-body, hand-arm, and cellular systems from both recreational and workplace settings.

Wilder, a member of domestic (ANSI) and international (ISO) standards-setting bodies related to human exposure to vibration, has studied back problems, spine biomechanics, and vibration since the 1970s, and notes that personal health effects may not be apparent for years. When they are, he says, vibration can compromise the musculoskeletal, neuromuscular, and even cardiovascular systems, depending on its frequency.

“You can demonstrate the effect of repetitive loading or stress due to vibration, by bending a paper clip repeatedly,” Wilder explains. “If you bend it back and forth just a little bit, the clip will never break. Once you go beyond that ‘little bit,’ it has a limited life and will fail after a certain number of repeated loads. This occurs in collagen, the fibers that make up human connective tissue, as well. Numerous repeated stretching of those tissues will make them mechanically softer and weaker like the paper clip.”

One of the common results of frequent, forceful vibration is back pain.

Fredric Gerr, professor of occupational and environmental health in the UI College of Public Health, studies musculoskeletal disorders and occupational health in society. He says lower back pain may not be life threatening, but its effects on people are staggering.

“Although back pain doesn’t kill anybody, it does cause suffering, decreased quality of life, and loss of work time,” Gerr says. “Prevention of work-related back pain is a goal that will hopefully be reached.”

Back pain isn’t the only problem created by vibrations. Many hand tools cause something called hand-arm vibration syndrome, a disorder of the hands and fingers. Chainsaws and jackhammers can be devastating on one’s hands if proper safety measures aren’t followed by the manufacturers or the operators.

“Vibrations can damage the nerves of the hands, causing numbness, and can compromise the blood vessels, decreasing blood flow,” Gerr says. “Both of these effects can weaken one’s grip and decrease the effectiveness of one’s hands.”

Wilder says companies have made advances in the past decade to combat the negative effects of whole-body and hand-arm vibrations, often due to improved national and international standards and laws. For example, seats formerly rigidly fixed now bob up and down to isolate the vibrations, and some newly manufactured gloves are made to ANSI and ISO standards to isolate vibration from one’s hand.

These kinds of reforms in standards, laws, manufacturing, and workplace design demonstrate that vibration research is having a positive effect. Although there still is much left to learn, Wilder says the improvements in the field are promising and will help millions of people around the world.

“We can do all the research we want, but if we can’t get the improvements into the system, the workplace, and to the general public, then it isn’t doing any good,” Wilder says. “Continuing to see new technology that combats vibration exposure is satisfying, but the important thing to realize is there is still much to be done.”

—Travis Varner

Preserving History

Digital age delivers new challenges

It’s tricky keeping up with technology. A mere 15 years ago, floppy disks were the most commonly used method of preserving digital information. Today, you might as well use them as coasters. Even if you remembered what was on those old disks at the back of your desk drawer, you no longer have a device that can read them.

Now multiply those obsolete disks repeatedly and you’re getting an idea of the challenges that face David McCartney, University archivist. In the past, preserving University history was a matter of collecting copies of the *Daily Iowan*, along with bulletins, newsletters, catalogs, photos, yearbooks, and more. Today, much of that same information is online, and the format used to save it today may be gone tomorrow.

The University Archives is part of the Department of Special Collections in the Main Library, and houses over 700 collections—more than 7,000 linear feet—that represent all 11 colleges at the University. The items archived include faculty members’ papers, administrative records, and many other materials. The majority of the collection is open to the public for research. The breadth of collected material means that every day is different for McCartney.

“I get questions that range from helping someone with a genealogy search to confirming the existence of a course for an alum who’s applying to grad school,” says McCartney, who came to the University in 2001. “Sometimes offices on campus want to reconstruct the steps that led to a past decision and I help them find the

had flipped to 25 percent print, 75 percent electronic.”

This change presents both opportunities and challenges. For those searching for information, access has improved tremendously. Using sources such as InfoHawk, the library’s online catalog, researchers quickly can discern what is available and even access some of that information remotely. This ease has created a definite uptick in the number of people who use it, placing emphasis on expediting the availability of materials. Items in a collection now often receive a more generalized description in order to make them more quickly available.

“This seems to satisfy users because it allows us to speed up access and keep the collection open for research,” McCartney says. “Technology also enables searching in ways that weren’t possible in the past—keywords enable sorting, for example.”

The challenges come, however, in capturing online and other digital information and preserving it in a way that it can be accessed in the future.

“Formats change constantly,” says McCartney, and that’s something most of us are familiar with.

Trying to adapt to a new cell phone or computer software can be annoying, but for an archivist it can mean a loss of information. In 2007, for example he secured a small grant from the National Television and Video Preservation Foundation to recover and reformat an “orphan video”—noncommercial titles created for scholarly and instructional purposes. The original 1-inch tape, a 1970 MFA thesis by graduate student Michael Eilenfeldt, was no longer accessible, so a professional vendor copied it onto DVD, VHS, and DVcam.

“Multiple formats help reduce the risk of loss,” says McCartney, adding that it’s not just transferring items into updated formats that creates challenges.

“Increasingly there are a number of items that used to



“Formats change constantly.”

University archivist David McCartney

documents that went into it. I get calls when a program or department is celebrating an anniversary, like the Scottish Highlanders’ upcoming diamond jubilee in 2011. I learn something every time I help someone with a search.”

Increasingly, those searches involve accessing digital materials. McCartney’s graduate school training came at a time when these materials were new.

“We were the last class at the University of Maryland’s library science school to complete a course in reference training at a time when 75 percent of consulted resources were traditional print and 25 percent were in some fledgling online form or CD-ROMs,” says McCartney, who grew up in Iowa. “By the next semester, that

be in print, like the University’s *General Catalog*, that are now ‘born digital,” he says. “The Office of the Registrar has done a wonderful job of preserving these records, but not all departments are able to do this. So there is a general concern for what might be lost.”

While the University’s *Operations Manual* has policies regarding what documents should be preserved and which can be destroyed (such as performance evaluations or documents containing social security numbers), a policy for the long-term management of online documents also is being considered.

“We are actively exploring ways to capture ‘born-digital’ content produced by the University, and to do so systematically,” says McCartney. “It’s not just an archives question, it’s an institution-wide question.”

Despite the challenges of the information age, the basic function of McCartney’s job is one that he finds highly satisfying, whether it be in digital or print format.

“We’re connecting people with memory,” says McCartney. “I feel very fortunate to do the work I do.”

—Linzee Kull McCray



Decoding Anorexia Nervosa

UI researcher probes cause of deadly eating disorder

Eating disorders affect about 10 million people in the United States each year; anorexia nervosa (AN), often characterized by an obsessive fear of gaining weight due to a distorted self-image, is the deadliest psychiatric disorder. The recovery rate for AN is around 50 percent, and the recovery process can take five to seven years. Relapses are common, many patients only partially recover, and up to 20 percent of those affected will eventually die from this disorder.

Laurie McCormick, assistant professor of psychiatry in the UI Carver College of Medicine, hopes to improve those aforementioned statistics. The Southern California native, whose work has taken her to Japan, Italy, and Germany, is conducting research supported by the National Institutes of Health (NIH) to better understand functional and structural brain changes associated with anorexia.

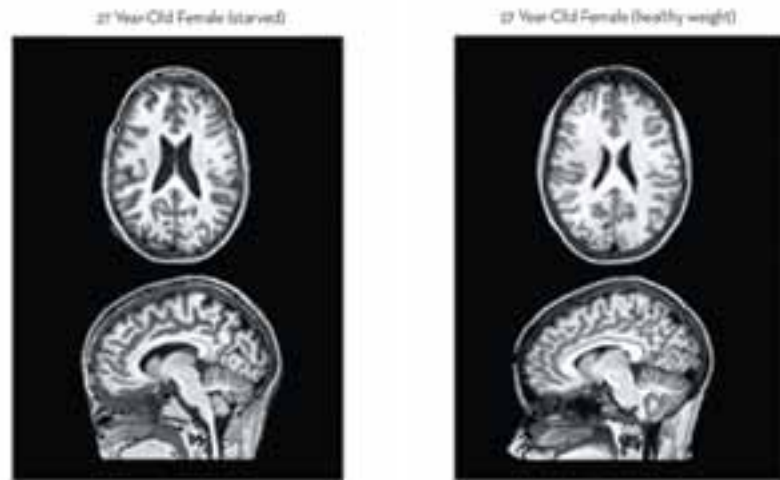
What sparked your interest in anorexia nervosa research?

We are beginning to understand the basic functional changes occurring in many psychiatric disorders, yet we still know virtually nothing about what causes eating disorders, particularly AN. The NIH has recently identified eating disorders research as a high priority for funding, and since there are very few people in the United States doing neuroimaging (brain mapping) research in this area, it seemed like a good time to get involved.

What inspired you to apply for funding?

I looked at neuroimaging data done here by some of my senior colleagues. They found that there is a global decrease in brain volume when AN patients are starved that tends to completely reverse itself after appropriate weight restoration, which took about three months on average to occur. Those researchers went on to study other psychiatric disorders, but I wanted to know if we were missing something. Since I have been interested in the anterior cingulate region of the brain, which is involved with emotions and cognition, I decided to focus on this brain area and found that the dorsal portion of this brain region atrophies, or shrinks out of proportion to the rest of the brain, during starvation. Also, this portion of the brain appeared to grow back at a slower rate.

The degree of atrophy in this brain region was directly related to decreased performance IQ, a common characteristic of acutely starved patients with AN. Interestingly, the anterior cingulate volume is also related to insight; and problems with this brain region may explain why starved patients with AN have such difficulty getting into and staying in treatment. The anterior cingulate also is known to be exquisitely sensitive to stress and to some sorts of nutritional deficiencies, and it appears to continue growing during adolescence while other brain regions are pruning. This is important since the incidence of AN is highest in adolescent



females who are typically gaining about 30 percent of their adult body weight and at a time when they are statistically most fearful of gaining weight.

I have a five-year NIH grant to follow up on these findings to further characterize whether damage to the anterior cingulate and related brain regions are directly related to the symptoms of AN, and if there is an age limit for which brain damage related to starvation is reversible.

How does AN start?

We actually don't know. Oftentimes, it starts as a result of trying to diet to lose weight. About two-thirds of patients with AN have underlying anxiety disorders. They are often perfectionists and have low self-esteem. They are particularly driven people: once they make up their mind to lose weight, they can be very good at it. There also is a cultural ideal of being thin as a valued trait—that could be partly to blame, especially in industrialized nations like the United States.

As mentioned before, it is much more prevalent in females than males, and occurs primarily during the teenage years. I am working with several medical students on an eating disorders education and prevention effort intended for fifth-through twelfth-graders—they can learn more about their bodies and the dangers of unhealthy eating and starvation.

How long have you had “the research bug”?

When I was 9, I was given a biology set and spent hours grubbing in the dirt, climbing trees, and dredging rivers to locate specimens to dissect and examine. Other kids in Southern California wanted to be train drivers, talk show hosts, or ballet dancers. I wanted to be a researcher. I took every science class I could, from physics to human anatomy, and spent my free time as a volunteer in a local hospital during high school and worked in the hospital throughout college. I decided to go into medicine so that I could help patients directly through my clinical work as well as through research.

—Christopher Clair



UI Teen Driver Study Improves Driving Safety

Using on-board, event-triggered video recorders to document the driving activities of new teenage drivers and sharing the videos with teen drivers and their parents can greatly reduce the number of potentially dangerous driving events.

That is the finding of a study by Daniel McGehee, director of the Human Factors and Vehicle Safety Research Program at the UI Public Policy Center, and his colleagues. McGehee says the study data suggest that an event-triggered video recording device and weekly report card can reduce teenagers' exposure to risky behavior during the critical first months of driving—when there is high risk for vehicle crashes.

The study, conducted with students from Eagan High School near Minneapolis, involved 36 16-year-old drivers (19 males and 17 females), all of whom were newly licensed drivers with less than five months of unsupervised driving experience. The results showed the number of “coachable events”—behaviors that can be modified through further driver training—declined by 61 percent during the study.

The Eagan study is the suburban companion to a UI rural teen driving study completed in 2008 at Clear Creek Amana High School in Tiffin, Iowa. Taken together, the two studies represent over 500,000 miles of testing using this technology.



College of Pharmacy Reaches Milestone

The UI College of Pharmacy has a reason to celebrate this fall: it turned 125, and is the fourth oldest state university-based college of pharmacy in the country. The first class enrolled in 1885 and consisted of just 12 men and one woman. Today, almost half of Iowa's practicing pharmacists were educated at the college. As part of the anniversary celebration, the college is hosting a series of public seminars. For more information, visit www.pharmacy.uiowa.edu/125.

University Grants Bring In Record \$466.5 Million

The University generated impressive growth in external support in fiscal year 2010. Total external funding for the 12-month period was \$466.5 million, which represents an all-time record and a 9 percent increase over 2009. The total surpassed the one-third-billion dollar mark for the ninth consecutive year. These grants represent initiative and accomplishment by faculty—and provide research and creative opportunities for students.

Bad Leadership Wrecks Companies, Despite CEOs' Claims

When companies go out of business, their leaders often blame something other than their own performance for the failure. For example, a parade of CEOs has for decades claimed the economy and outside pressures were responsible for General Motors' difficulties, not poor leadership or a broken culture.

But a new UI business study suggests that when a company goes under, it's more often the result of bad leadership decisions.

“We found that managers of failed firms are less skilled than their peers, and the consequences of their incompetence are economically significant,” says Tyler Leverty, assistant professor of finance in the Tippie College of Business. “We conclude that yes, managers do matter when companies fail.”

Leverty and Martin Grace of Georgia State University reviewed the performance of 12,000 insurance companies between 1989 and 2000, and measured how quickly CEOs were able to remove their firms from regulatory scrutiny, whether management quality reduces the likelihood of insolvency, and whether ability influences the cost of insolvency in firms that go out of business.



Study Implicates Black Carbon in Global Warming

Increasing the ratio of black carbon to sulfate in the atmosphere increases climate warming, suggests a study conducted by a UI professor and his colleagues.

Black carbons—arising from such sources as diesel engine exhaust and cooking fires—are widely considered a factor in global warming and are an important component of air pollution around the world, according to Greg Carmichael, the Karl Kammermeyer Professor of Chemical and Biochemical Engineering in the UI College of Engineering and codirector of the University's Center for Global and Regional Environmental Research. Sulfates occur in the atmosphere largely as a result of various industrial processes.

In order to conduct their study, the researchers—including V. Ramanathan and Y. Feng of Scripps Institution of Oceanography, S.-C. Yoon and S.-W. Kim of Seoul National University, and J. J. Schauer of the University of Wisconsin—Madison—made ground-level studies of air samples at Cheju Island, South Korea, and then sampled the air at altitudes between 100 and 15,000 feet above the ground using unmanned aircrafts.

They found that the amount of solar radiation absorbed increased as the black-carbon-to-sulphate ratio rose. Also, black carbon plumes derived from fossil fuels were 100 percent more efficient at warming than were plumes arising from biomass burning.

The researchers suggest that climate mitigation policies should aim to reduce the ratio of black carbon to sulphate in emissions, as well as the total amount of black carbon released. They also note that soot and other forms of black carbon could equal up to 60 percent of the current global warming effect of carbon dioxide, the leading greenhouse gas.

UI Center Receives \$10 Million for Floodplain-Mapping Project

Iowa individuals, businesses, and communities will be able to better identify their flood risks thanks to a new floodplain-mapping project conducted by the Iowa Flood Center (IFC) at The University of Iowa. The center received a four-year, \$10 million contract from the Department of Natural Resources under a Community Development Block Grant Program from the U.S. Department of Housing and Urban Development to conduct the project.

Part of the College of Engineering's IIHR—Hydroscience & Engineering, the IFC will work closely with the Iowa Department of Natural Resources to develop floodplain maps for the 85 Iowa counties declared federal disaster areas following the 2008 floods. The project will map all streams draining one square mile or more in these counties. The IFC also will develop innovative floodplain-mapping tools and train undergraduate and graduate students. When complete, the maps will help to guide floodplain regulation and management and will be available online.

Born out of events surrounding the 2008 Iowa floods, the IFC has improved flood monitoring and prediction capabilities in Iowa by helping towns at risk for flooding better understand how distant rainfall affects them by identifying the boundaries of upstream river basins. The IFC also laid the groundwork for a new, \$3,000 stream-level sensor—developed by UI engineering students—that can be attached to the underside of bridges to provide an online database for monitoring rivers.

For more information, check out www.iowafloodcenter.org.



Command Performance—page 1

Dedicated staff keeps the Hancher spirit alive

Field Day—pages 4–5

Pediatric patients take center stage at Kinnick

Birth of Lamaze—page 8

Professor traces Soviet roots of popular pain-management technique

Good Cents—page 9

Study shows University annually generates \$6 billion for state

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New recreation and wellness center debuts

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Beating an Eating Disorder—page 14

Brain mapping may shed light on deadly anorexia nervosa

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PHOTOS: (PG 1) TOM JORGENSEN; (PGS 4–5) KIRK MURRAY; (PG 7) TOM JORGENSEN; (PG 12) ISTOCKPHOTO; (PG 10) KIRK MURRAY

A Year for the Record Books

University of Iowa officials received a double dose of positive enrollment news this fall: not only did the number of incoming first-year students set a record at 4,557—494 more first-year students than last year, and 268 more than the previous record-breaking incoming class, back in 2006—the retention rate at Iowa is the highest it's been in at least a decade.

The incoming class also is among the most diverse, due to an increasing number of U.S. minority students choosing Iowa and a large jump in international student enrollment.

To officially kick off the 2010–11 academic year and welcome the class of 2014, the University hosted an annual convocation celebration on the Pentacrest on Aug. 22, followed by a block party at the President's Residence. Nearly 4,000 students attended the events, taking home goodie bags that contained water bottles, sunglasses, spirit bracelets, highlighters, 2014 tassels, and more.



PHOTO BY TIM SCHOON